TEAC®

A-1340

4 CHANNEL SIMUL-TRAK STEREO TAPE DECK

SERVICE MANUAL

TEAC CORPORATION

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MT1340E100

1 GENERAL DESCRIPTION

The TEAC A-1340 is a 2-channel/4-channel Simul-Trak stereophonic tape deck. 4 independent record and playback amplifiers incorporate the latest professional circuitry. The A-1340 is a single motor tape deck utilizing a two speed hysteresis synchronous motor coupled to an efficient belt drive system. Switched bias networks provide compatibility for high bias tapes. Carefully constructed to provide high performance, convenience of operation and optimum tape handling capability, the A-1340 is highly recommended for use with high quality audio systems.

This service manual provides adjustment and alignment procedures, schematic diagrams and parts replacement information and the proper procedures for obtaining necessary repair parts.

If adjustments or repair procedures are not clear or seem difficult to accomplish or should you desire more detailed technical information, please contact your nearest TEAC dealer, TEAC Corporation or affiliated corporations, address's of which are printed in this manual.

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2 SERVICE DATA

MECHANICAL

Heads:	Three, 4 track - 4 channel and 2 channel stereophonic Erase head (Ferrite); 1.8kΩ/100kHz, erase current approx. 35mA/100kHz Record head (Permalloy); 105Ω/1kHz, bias current approx. 2mA/100kHz recording current approx. 130μA/400Hz Playback head (Permalloy); 1.8kΩ/1kHz -63dB/400Hz
Reel Size:	7 inch max. NAB reel
Tape Width:	Standard 1/4 inch tape
Tape Speed:	7-1/2ips (19cm/s) and 3-3/4ips (9.5cm/s)
Motor:	Dual speed hysteresis synchronous driving motor
Wow and Flutter:	0.22% at 7-1/2ips 0.27% at 3-3/4ips Wow and flutter measured according to unweighted NAB standard using TEAC flutter free tape.
Fast Winding Time:	Approx. 210 seconds or less for 1,200 feet
Operating Position:	Horizontal or Vertical
Power Requirements:	100/117/200/220/240 V AC 50/60Hz 55W
Weight:	40 lbs (18 kg) net

ELECTRICAL

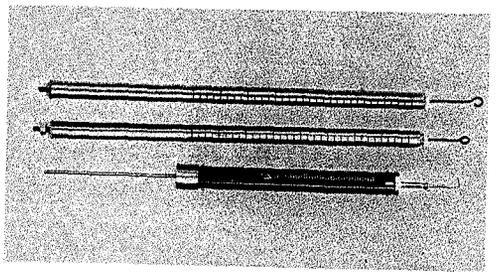
Transistors:	Semiconductors (Left channel only) 2SA666(T) ×1 2SC1226(A) ×2 2SC644(T) ×4 2SC828(T) ×4
Diodes:	S1B-02-CD1 ×1 FR2-02 ×1 FR2-06 ×1
Frequency Response:	Overall from recording INPUT to playback OUTPUT using SCOTCH #203 tape 7-1/2ips, 40Hz∿18kHz +3dB, -4dB 3-3/4ips, 50Hz∿10kHz +3dB, -4dB
Equalization:	NAB equalization 7-1/2ips 50μsec 3-3/4ips 90μsec
Input:	MIC: 0.25mV/600Ω, -70dBm LINE: 0.1V/50kΩ, -18dBm
Output:	LINE: 0.3V/10kΩ or more -2dBm PHONE: 0.3mW/8Ω -24dBm
Bias Frequency:	100kHz push-pull oscillator
Signal to Noise Ratio:	7-1/2ips, 50dB or higher 3-3/4ips, 48dB or higher at playback to unweighted noise
Stereo Chan. Separation:	45dB or more channel to channel at 1kHz
Cross Talk:	35dB or more adjacent track at 100Hz
Erase Efficiency:	60dB or more at 7-1/2ips

These specifications are indispensable information and are required to service the equipment properly. They may differ slightly from those printed in the advertising brochures or the operation manual.

3 EQUIPMENT REQUIRED

FOR MECHANICAL MEASUREMENT

SPRING SCALE:	0∿4 kilo-grams (0∿8 lbs) #5086025000 0∿300 grams (0∿10 oz) #5086026000
TEST TAPE:	TEAC YTT-2003 (7-1/2ips) TEAC YTT-2002 (3-3/4ips)
FLUTTER METER:	Meguro Model MK665B (preferred) or Sentinel FL-3D-1
DIGITAL FREQ. COUNTER:	Capable of 0 to 5kHz indication
TOOLS:	General, 2mm nut driver #5086014000 Hex head, allen wrench #5086021000



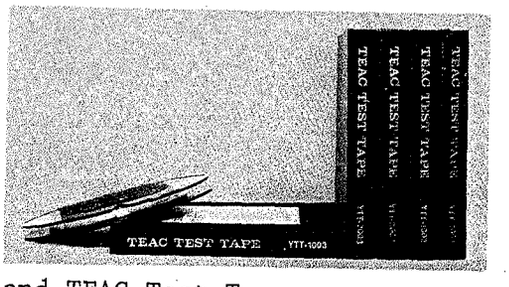


Fig. 3-1 Spring Scale, and TEAC Test Tape

FOR ELECTRICAL MEASUREMENT

TEST TAPE:	TEAC YTT-1003 for 7-1/2ips TEAC YTT-1002 for 3-3/4ips SCOTCH 203 and 150 for test recording
EMPTY REEL:	TEAC RE-702 (2" hub) TEAC RE-701 (4" hub)
TEST SET:	TEAC M-826A test set
BAND PASS FILTER:	TEAC M-206A (1kHz)
AC/DC VTVM:	General purpose
RESISTOR:	Non inductive type 8Ω/1W
OSCILLOSCOPE:	General purpose

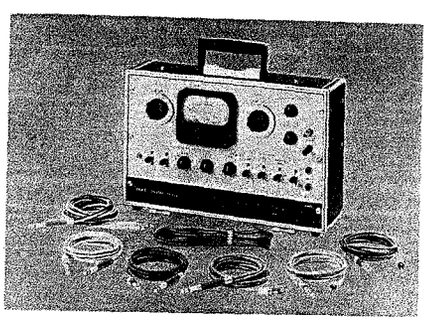


Fig. 3-2 TEAC M-826A

NOTE

Use of the TEAC M-826A test set is recommended. This set incorporates an AC VTVM, Audio Oscillator, Channel Selecting switch, Variable Attenuator, Monitor Speaker and Cables.

TEAC M-826A measures the RMS value of the Voltage(0dB=0.775V). Characteristics of this test set are similar to the standard VU meter.

4 PARTIAL DISASSEMBLY

REMOVING EQUIPMENT FROM THE CASE

1. Carefully place equipment face down on a soft, clean rubber mat or equivalent.
2. Remove 4 screws securing the rear of case. (Refer to exploded view.)
3. Remove the two screws from the top of case.
4. Carefully lift case off the mechanism.

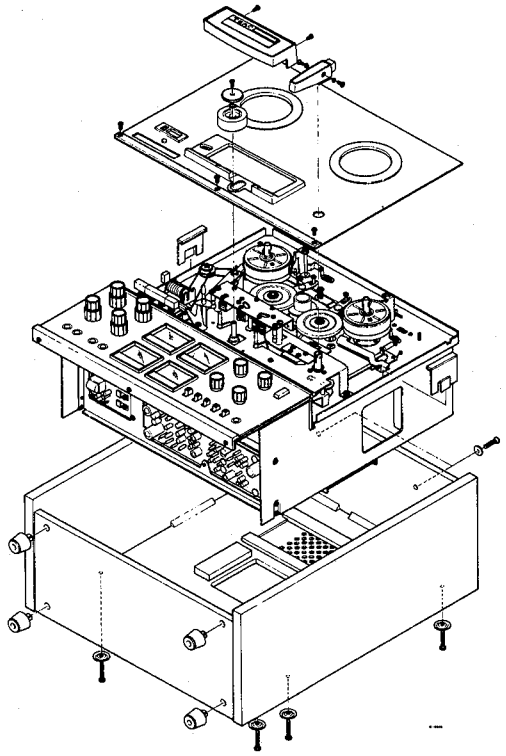
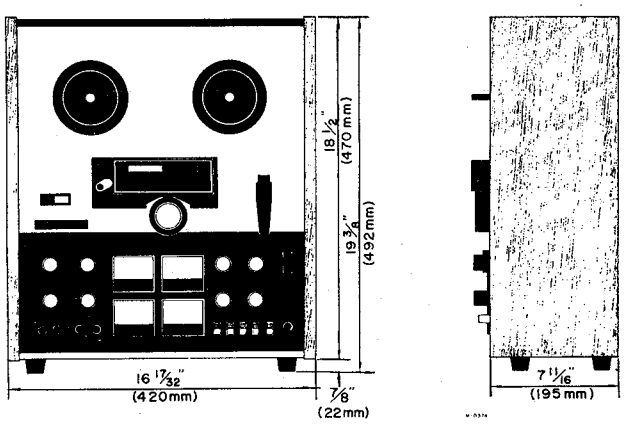


Fig. 4-1 Removing Equipment from the Case



Dimensions

FACE PLATE REMOVAL

NOTE

To remove face plate from the equipment, first remove the control lever, head assy cover and pinch roller.

1. Remove three screws at bottom of face plate.
2. Carefully lift face plate from equipment. (Refer to Fig. 4-1.)

   NOTE: Top of face plate slides under lip. Slide down approx. 1/2" before lifting.

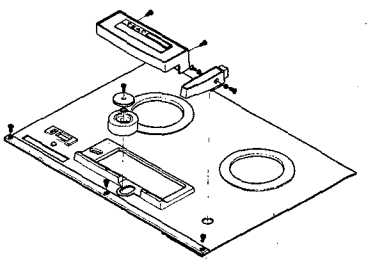


Fig. 4-2 Face Plate Removal

HEAD ASSEMBLY REMOVAL

1. Loosen thumb screws in head assy cover plate.
2. Lift the plate to expose two Phillips screws.
3. Remove the screws.
4. Pull off the head assembly.

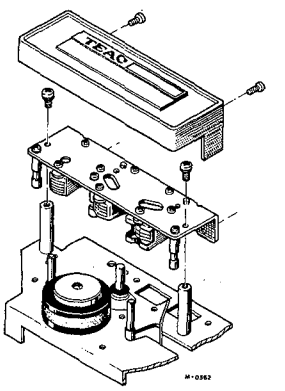


Fig. 4-3 Head Assembly Removal

CAPSTAN ASSEMBLY AND BELT REMOVAL

1. First remove the face plate.
2. Remove the rubber dust guard from capstan shaft.
3. Remove the six screws holding head base. Lift off base and set aside.
4. Slide belt from capstan pulley and drive pulley. Remove belt.
5. Grasp the defective capstan by the shaft and lift it out of the swivel type bearing.
6. To reinstall capstan assembly, reverse above procedures.

NOTE

A clearance of 0.05∿0.3mm must be maintained between the capstan shaft and capstan thrust plate.

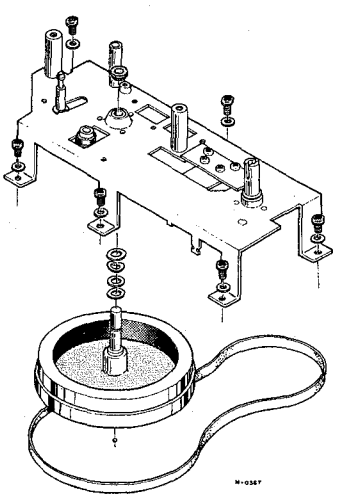


Fig. 4-4 Capstan Assembly And Belt Removal

IDLERS REMOVAL

Close tolerances in the idler assembly require that it be replaced as a unit.

To remove the idler assembly, unsnap the E clips from each of the three retaining shafts. Do not allow compressed spring on center retaining shaft to escape.

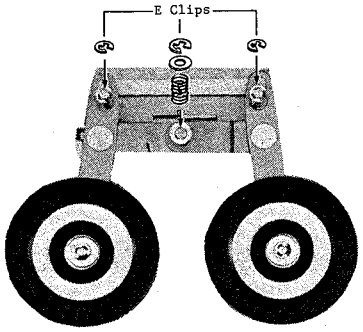
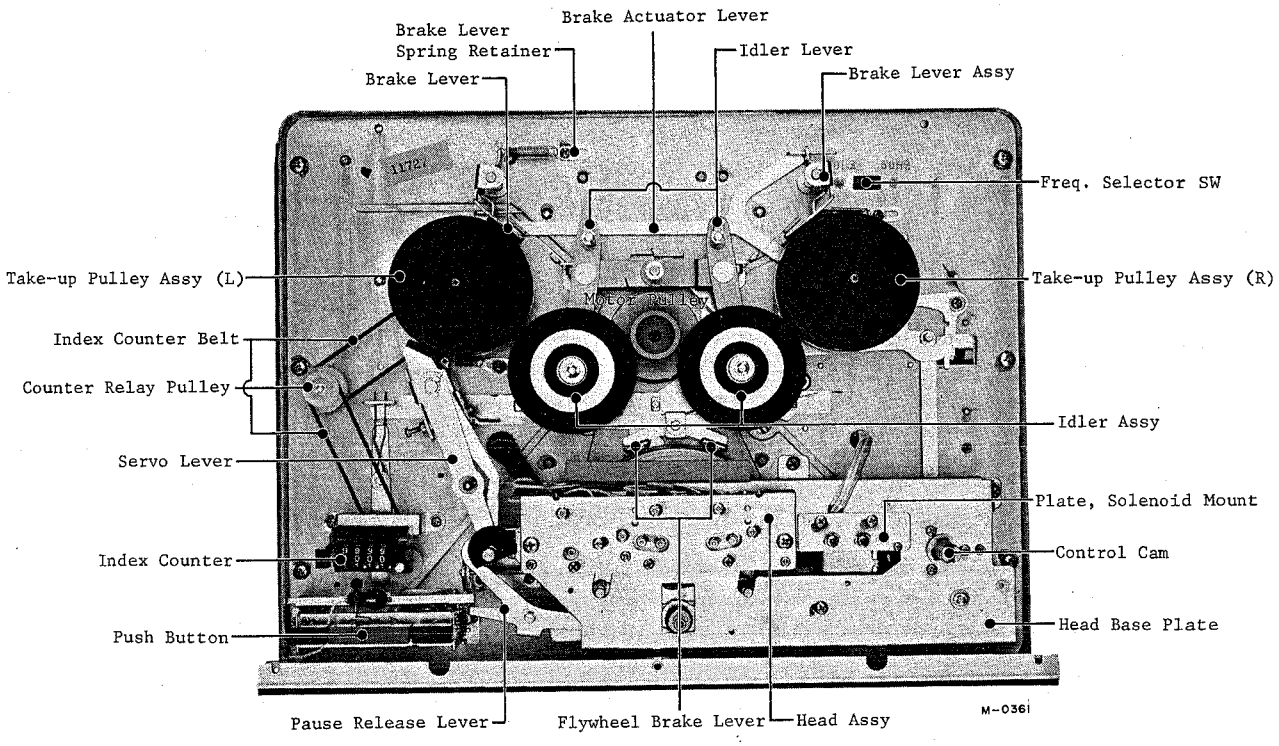


Fig. 4-5 Idlers Removal

TAPE TRANSPORT PARTS LOCATION



FRONT VIEW

NOTE

For ordering parts, refer to the exploded view of the MAIN CHASSIS. An accompanying listing provides the correct part numbers.

5 HEAD REPLACEMENT AND ALIGNMENT
-MECHANICAL-

HEAD REPLACEMENT

Head alignment is adjusted at the factory to very critical tolerances. Normally HEAD ASSEMBLY replacement will require only minor alignments or adjustments. Complete readjustment will be necessary after a head is replaced. The adjustments are explained on the next page.

To replace a single head, a special 2mm nut driver is required. Remove the two nuts on the defective head through the access hole provided, this releases the head from the mounting plate. Note the position of the wires on the circuit board. Connect the new head in the same manner.
Replace the nuts securing the new head to the plate, perform head alignment before operation.

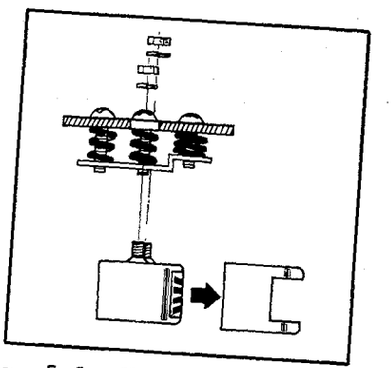
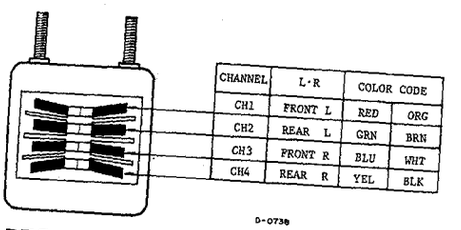


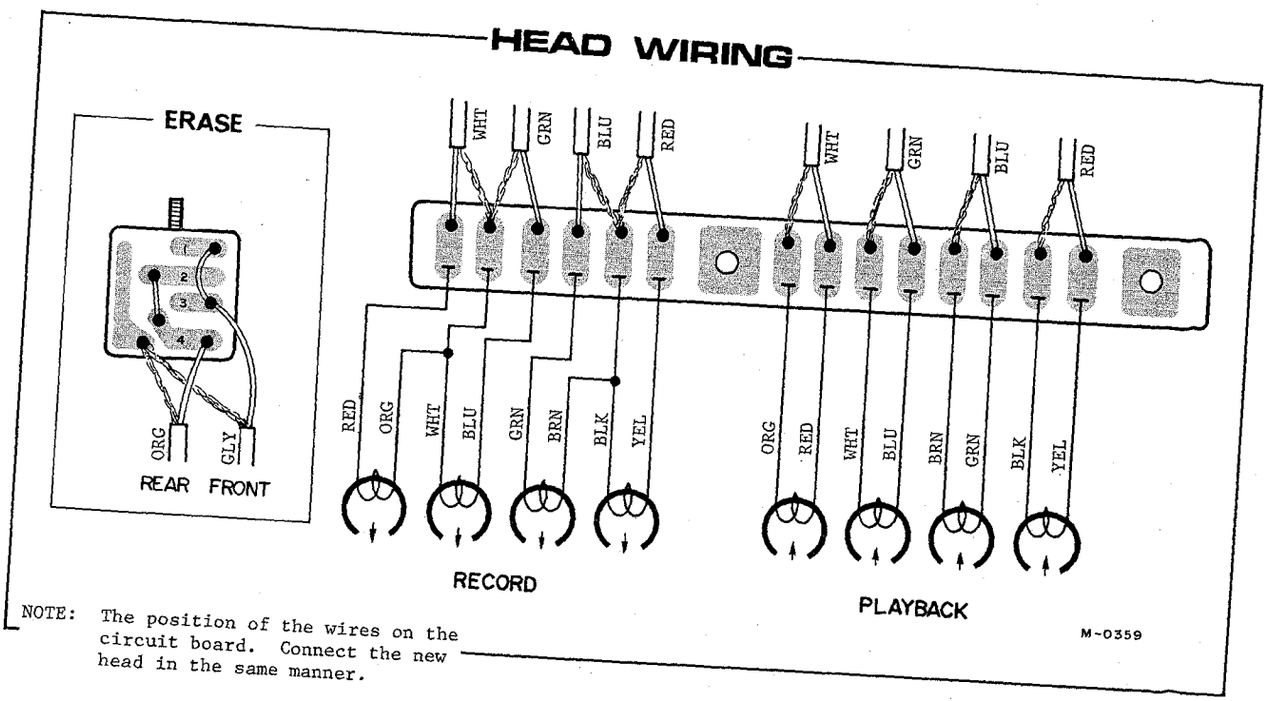
Fig. 5-1 Head Replacement



CHANNEL	L·R	COLOR CODE	
CH1	FRONT L	RED	ORG
CH2	REAR L	GRN	BRN
CH3	FRONT R	BLU	WHT
CH4	REAR R	YEL	BLK

D-0738

REC and PB Head Configuration



NOTE: The position of the wires on the circuit board. Connect the new head in the same manner.

HEAD ALIGNMENT

HEAD ALIGNMENT

-Playback Head-

The pole of the playback head should be even with the top of a threaded tape.

-Erase Head-

The erase head pole should be above the edge of a threaded tape by the width of heavy pencil line.

-Record Head-

The record head pole should be above the edge of a threaded tape by the width of a thin pencil line.

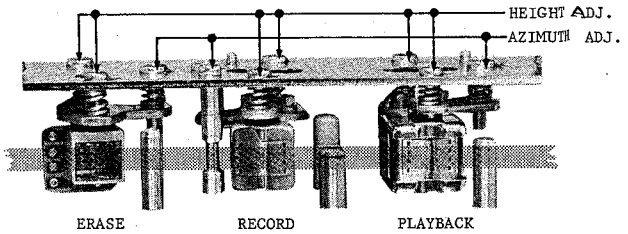


Fig. 5-2 Head Alignment And Adjustment Screws

MECHANICAL MIS-ALIGNMENT OF THE HEADS -EXAMPLES-

ALIGNMENT - The physical positioning of a tape head relative to the tape itself. Alignment in all respects must conform to rigid requirements in order for a unit to function properly.

AZIMUTH - The angle of a tape heads pole-piece slot relative to the direction of tape travel.

NOTE

In order for a tape unit to work at its best, with its own tapes as well as ones made on other units, its play and record heads must be aligned to correct the four possible errors as illustrated to the right.

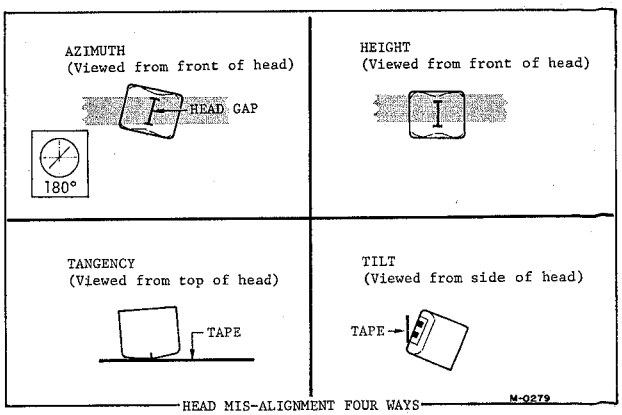


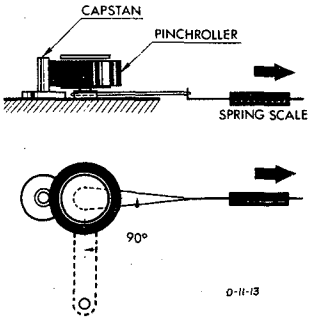
Fig. 5-3 Head Mis-Alignment Four Ways

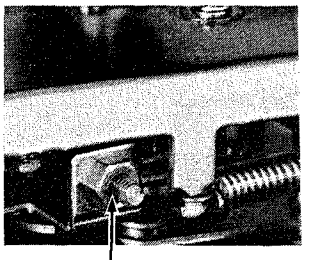
6 MEASUREMENT AND ADJUSTMENT
-MECHANICAL-

The TEAC A-1340 employs a well designed single motor, belt driven system and should require a minimum of mechanical maintenance or adjustments.

PINCH ROLLER PRESSURE

1. Connect a spring scale to pinch roller shaft as shown in the illustration.
2. Place control lever in the play position with power applied and tape threaded.
3. Pull the spring scale away from the capstan shaft.
4. Make your reading on the spring scale when the pinch roller separates from the capstan. This reading should be 1.8∿2.0 kg.
5. If pressure is outside the above limits, use a 4mm nut driver to adjust the nut at the lower right side of the transport mechanism (see illustration) for optimum pressure.
6. After adjustment, secure the nut with LOCTITE.





Adjustment Nut

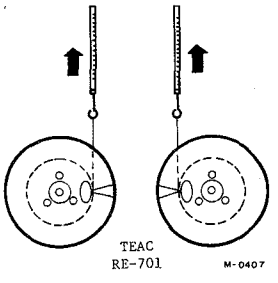
Fig. 6-1 Pressure Measurement and Adjustment Locations

BRAKE TORQUE

NOTE

The brake adjustments must be performed with the control lever in "STOP" position with no power applied.

1. Place the empty reel(RE-701) and spring scale on the reel as shown in Fig. 6-2.
2. Pull the scale away from the reel. The scale reading should be 900 ±100g-cm. If adjustment is required, loosen the screw holding the brake spring retainer and move it backward or forward.
3. After brake torque adjustment, the loosened screws must be resecured with LOCTITE.



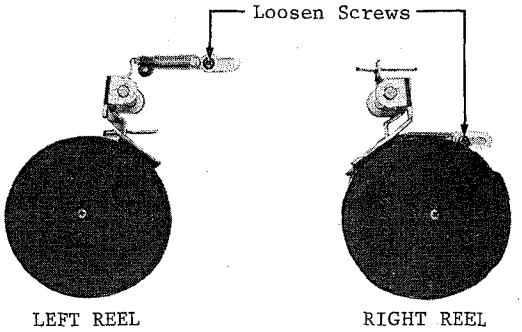


Fig. 6-2 Torque Measurement and Adjustment Locations

IMPORTANT

All Torque and Tension Measurements must be made with the automatic shut-off switch blocked to the ON position. Insert some stiff paper between the dropping arm and the two parallel fingers around it before performing the following steps.

TAKE-UP TORQUE

1. Place the empty reel(RE-702) and spring scale on right reel as illustrated.
2. Set power switch on and place the control lever in play mode.
3. Allow the rotation of the reel to slowly draw the scale toward the hub. The spring scale should read 170 ±10g-cm.
4. If adjustment is required, it can be made by rotating the spring arms on the stepped bottom drum inside the back of each reel turntable. (Each step represents approx. 10g-cm).

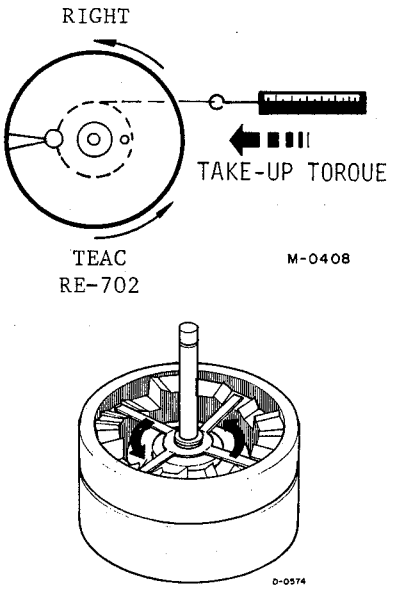


Fig. 6-3 Torque Measurement And Adjustment

BACK TENSION -FAST WINDING-

1. Place the empty reel(RE-702) and spring scale on left reel turntable as illustrated.
2. Place the control lever to fast forward mode.
3. Pull the spring scale in a counter clockwise direction. The reading should be 55 ±10g-cm.
4. If adjustment is required, bend the flat spring arms that are shown in Figure 6-4. These arms have square, felt-tip pads which contact the reel drum back-brake plate.
5. To adjust the right reel back tension repeat the previous step with the exception that all directions of rotation are clockwise and the control lever is in the rewind mode.

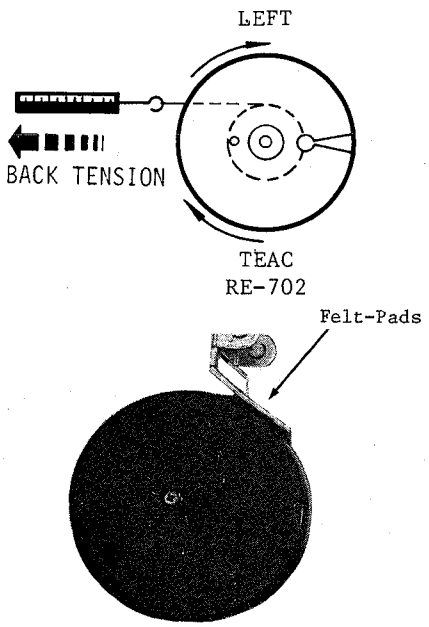


Fig. 6-4 Back Tension Measurement and Adjustment

BACK TENSION

Maximum:

1. Apply power to the unit.
2. Place the empty reel(RE-702) and spring scale on the left reel table as shown in Fig. 6-5.
3. Place the control lever to play mode.
4. Pull the scale away from the reel, the scale reading should be 350 ±100g-cm.
5. If tension is not within the specified limits, adjustment can be made by loosening the securing screw (A) and moving the back lever spring hook. Then tighten the securing screw.

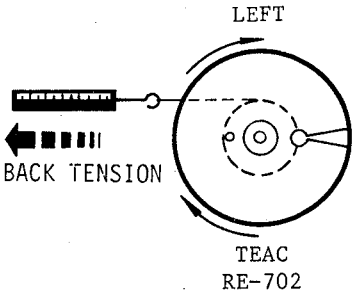


Fig. 6-5 Tension Measurement

Minimum:

1. Use a rubber band to hold tension arm in full right position.
2. Place the control lever to PLAY mode. The reading should be 80 ±30g-cm.
3. If it is not within limits, adjust by turning the screw which changes the spring force (B).
4. Apply a drop of LOCTITE to the adjustment screw.

NOTE: For locations of (A) and (B) above, refer to Fig.6-8 Tension Servo Loop.

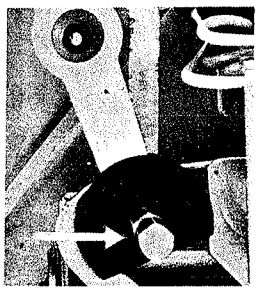


Fig. 6-6 Tension Arm

SOLENOID POSITIONING

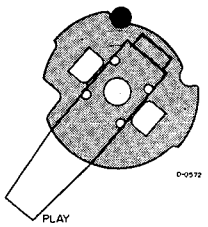
1. Apply power to the unit.
2. Place control lever in PLAY mode.
3. Loosen the two solenoid retaining screws.
4. Slide solenoid housing back and forth until plunger just bottoms in solenoid.
5. Make certain that the roller fully engages the cam detent when solenoid plunger is fully bottomed.
6. Retighten the solenoid positioning screws.

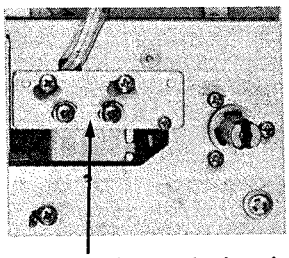
NOTE

Since the cam roller is connected to the solenoid, the control lever will not stay in PLAY position unless power is applied to the unit.

PRECAUTION

These adjustments are carefully made at the factory. Readjustment should only be required after many hours of operation or after component replacement.





Solenoid Positioning Screws

Fig. 6-7 Cam Detent And Adjustment Location

TENSION SERVO LOOP

The left tension arm is coupled to the tension servo loop and applies varying friction to the supply reel brake drum. This maintains tape tension at a constant level despite the change of diameter at the supply reel in the PLAYBACK or RECORD modes.

As tension varies, the tension arm will move either left or right. Back tension on the supply reel will be varied according to the direction of movement. The tension arm at the extreme left position will apply maximum friction to the supply reel brake drum. This in turn will increase the tape tension, tending to move the tension arm back to the right, thus maintaining optimum overall tension.

CAUTION

If servo loop tension is adjusted, the constant back tension must also be readjusted as a constant level of back tension is always applied to the supply reel in addition to that controlled by the tension servo loop. After readjusting back tension, recheck the servo loop.

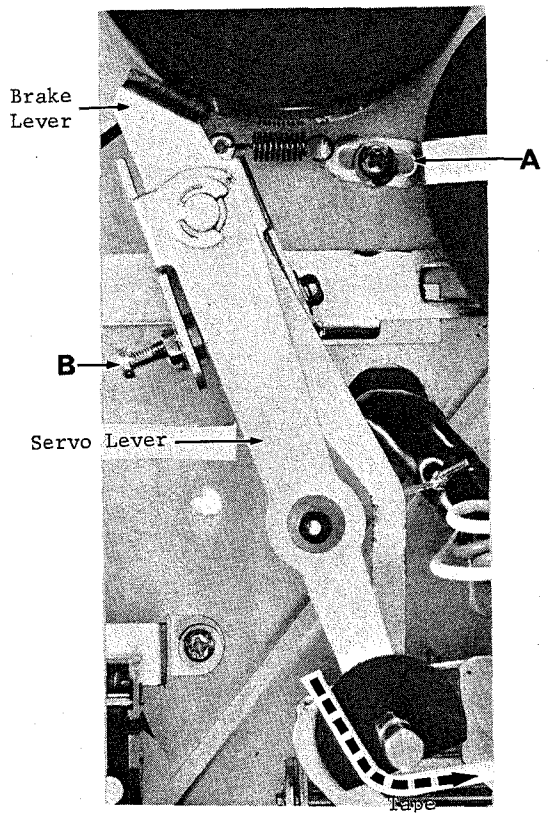


Fig. 6-8 Tension Servo Loop

REEL HEIGHT ADJUSTMENT PROCEDURES

To change reel height, remove the rubber insert from the reel turntable. Three positions of compensation are provided, M, H and L. Reinsert the rubber mat so that the desired letter shows in the cutout portion.

M - Medium H - High L - Low

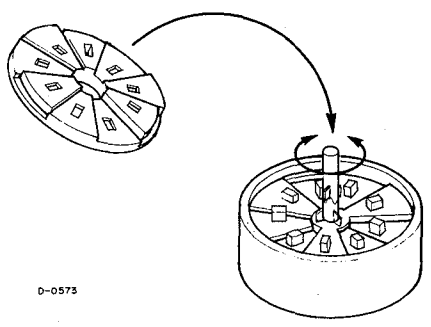


Fig. 6-9 Reel Height Adjustment

FLUTTER

Flutter should be measured in PLAYBACK mode using a TEAC flutter free tape YTT-2003·2002 and Meguro model MK665B Flutter Meter. Measurement of flutter should be made in accordance with NAB standards.
Values obtained with different standards or equipment cannot be compared.
Flutter should not exceed. 7-1/2ips: 0.22%
3-3/4ips: 0.27%

These figures apply to any tape position and direction(such as full take-up reel, full supply reel or about mid point).

TAPE SPEED

The tape speed should be measured using TEAC flutter free tape, model YTT-2003·2002. These tapes contain a highly accurate 3 kHz tone.
Connect a digital frequency counter to either line OUTPUT jack.
The indicated frequency should be 3 kHz ±0.5% for all speeds.

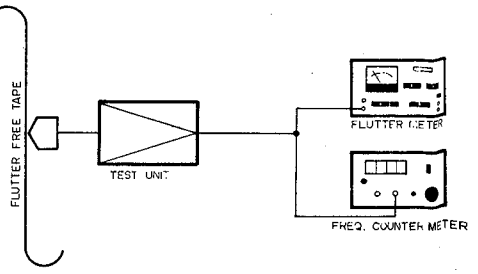


Fig. 6-10 Test Equipment Set-Up

VOLTAGE AND FREQUENCY CONVERSION

-Voltage Conversion-

The A-1340 may be set for 100,117,200,220 or 240 volts. To change the voltage, unscrew the fuse in the center of the voltage selector plug (located on the lower rear of the unit). Pull out the plug and reinsert it so the desired voltage shows in the cut-out. Reinstall the fuse.

-Frequency Conversion-

1. Position the drive belt on the proper steps for your line frequency. Outer steps are for 50 Hz, inner steps are for 60 Hz. After repositioning belt, rotate the motor pulley several turns to ascertain that belt is tracking properly. Place the frequency selector switch (located above the right reel turntable) to the position corresponding to your line frequency.
2. Replace front panel and associated hardware.

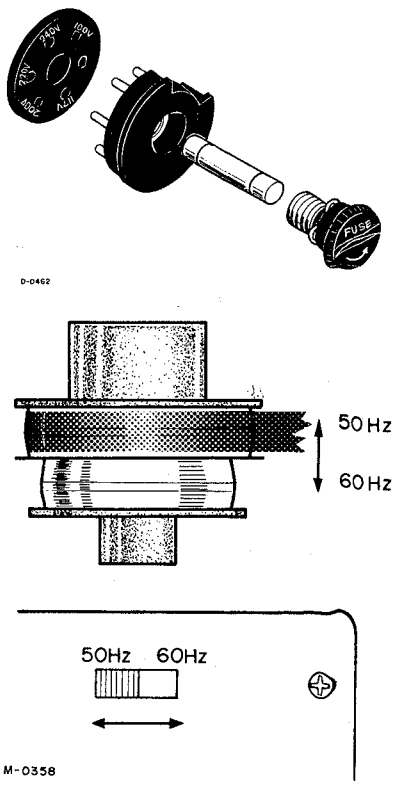


Fig. 6-11 Voltage And Frequency Conversion

7 MEASUREMENT AND ADJUSTMENT
-ELECTRICAL-

GENERAL NOTICE

Before performing maintenance on this unit, thoroughly clean and demagnetize the entire tape path.

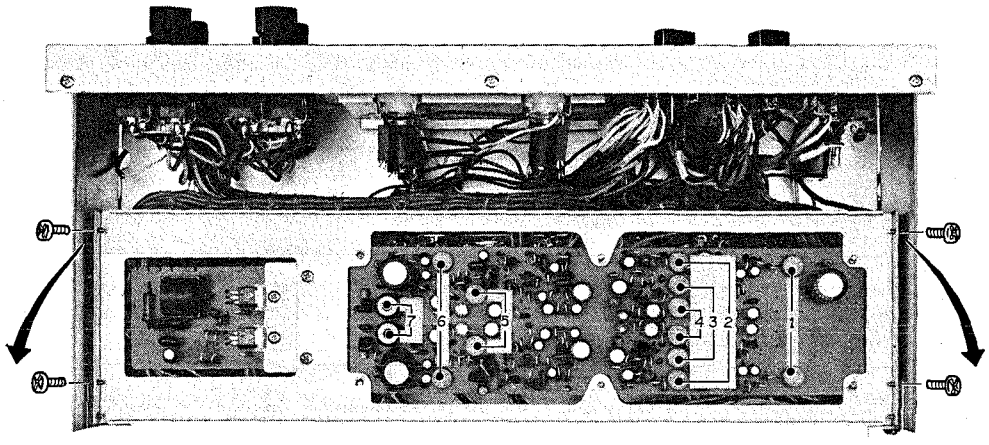
It is important that the unit be set to the proper voltage and frequency for your locality.

TEAC specified standard test tapes and test equipment must be used when performing maintenance to insure reliable results.

Procedures for checks and adjustments, unless otherwise indicated are for the left FRONT channel at a tape speed of 7-1/2ips. The same procedures are to be applied to the right FRONT channel and each REAR channel, and again for all channels at 3-3/4ips.

All controls mentioned in this book will be printed in bold letters and will be exactly as they appear on the unit.

Only FRONT adjustments are illustrated, REAR adjustments are identical.



NO.	ADJUSTMENTS	FRONT	REAR
1	VU METER CAL.	VR104/204	VR504/604
2	PLAY EQ. (LOW)	VR102/202	VR502/602
3	PLAY EQ. (HIGH)	VR101/201	VR501/601
4	OUTPUT LEVEL	VR103/203	VR503/603
5	REC METER LEVEL	VR302/402	VR702/802
6	REC LEVEL	VR301/401	VR701/801
7	REC EQ.	L 301/401	L 701/801

Fig. 7-1 Adjustment Locations

NOTE: Components are identified as Left/Right (i.e., VR-104/204)

PLAYBACK PERFORMANCE

PLAYBACK HEAD AZIMUTH ADJUSTMENT

NOTE

After head replacement or if, during playback, a slight pressure on the heads results in a rise of the reading of the level meter, head azimuth adjustments should be accomplished.

Coarse Adjustment

1. Connect a level meter either OUTPUT jack.
2. Thread a TEAC test tape YTT-1003 on the unit.
3. Play the 15 kHz test tone in section 2 of the test tape.
4. Slowly rotate the azimuth screw until maximum indication is obtained on the level meter. (See Fig.5-2).

Fine Adjustment

It is absolutely essential to accomplish the coarse adjustment before performing the fine adjustment to avoid phase errors larger than 45°. After coarse adjustment, do not make large corrections, turn azimuth screw 1/4 turn or less.

5. Place the PLAY switch in 4CHAN. position.
6. Connect the test equipment as shown in Fig. 7-2 below.
7. Play a 50 Hz∿7.5 kHz signal and adjust the azimuth screw until the oscilloscope shows that the signals are less than 45° in phase for channels 1 and 3. Channels 2 and 4 should be less than 90° in phase.
8. Secure the screw with a drop of LOCTITE.

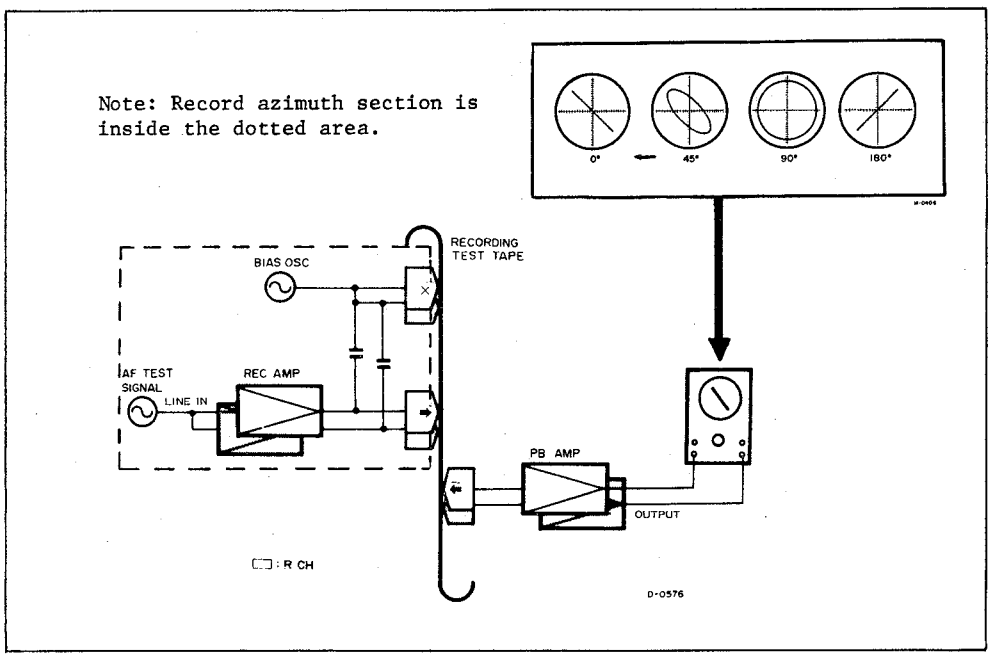


Fig. 7-2 Fine Adjustment Set-Up -Head Azimuth-

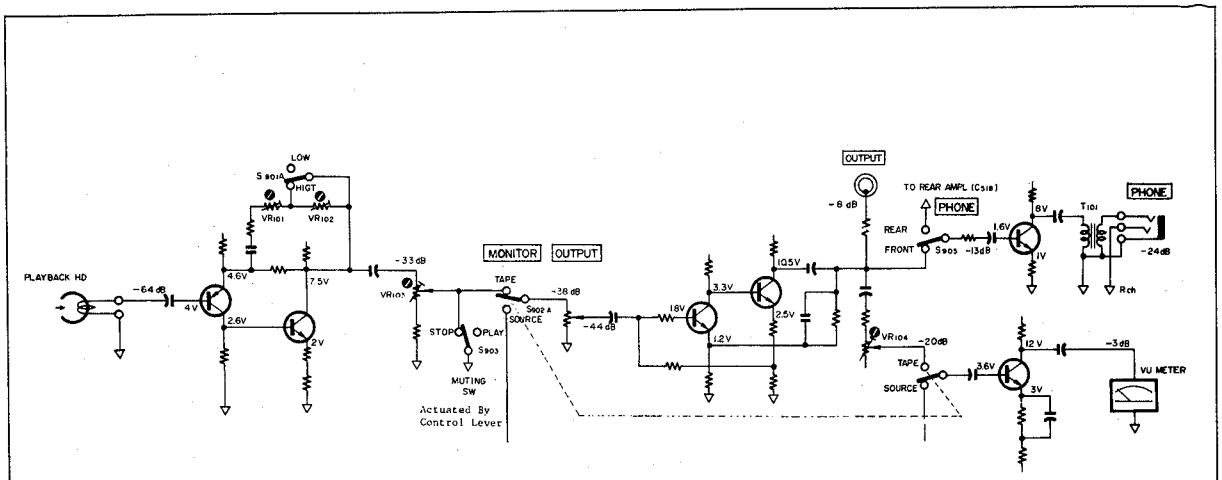


Fig. 7-3 Simplified Diagram -Playback-

SPECIFIED OUTPUT LEVEL SETTING

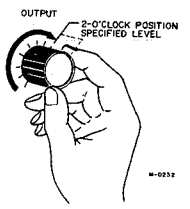
NOTE

Connect a 10 kΩ load to the OUTPUT jacks for all audio measurements when not using TEAC M-826A (0dB=0.775V) output meter.

1. Place the MONITOR switch to the TAPE position.
2. Turn the OUTPUT controls fully clockwise.
3. Thread TEAC test tape YTT-1003 on the unit. Operate at 7-1/2ips. This tape will apply a 400 Hz signal at operating reference level (1% of the THD level).
4. Adjust FRONT VR-103/203, REAR VR-503/603 to obtain an output of -2 dB at the OUTPUT jacks.
5. Align the reference marks of all 4 OUTPUT controls so that they are at the 2 o'clock position. This will give approximately -8 dB at the OUTPUT jacks.
6. Readjust FRONT VR-103/203, REAR VR-503/603 for a -8 dB output level at each OUTPUT jack.

IMPORTANT

This is the specified output level setting. Do not disturb this setting until the remaining adjustments have been completed.



VU METER CALIBRATION

1. Playback the 400 Hz tone (1% THD) in section 1 of the test tape YTT-1003.
2. With MONITOR switch in TAPE position, PHONE switch at FRONT position, adjust VR-104/204 for a reading of 0 VU on the VU meters.
3. With PHONE switch in REAR position, adjust VR-504/604 as in FRONT position (±1 dB).

FREQUENCY RESPONSE

1. Place tape SPEED switch in HIGH position.
2. Thread a TEAC test tape YTT-1003 on the unit.
3. Compare the readings obtained on the level meter with the response limits given in Fig. 7-4.
4. If adjustment is required, adjust FRONT VR-101/201, REAR VR-501/601 at 7-1/2ips speed.
5. Place tape SPEED switch in low (3-3/4ips) position. Repeat step 3. Adjust FRONT VR-102/202, REAR VR-502/602.

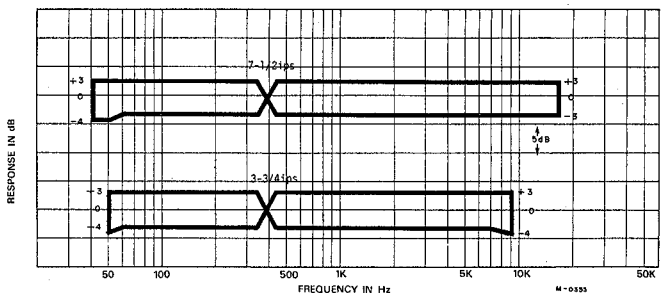


Fig. 7-4 Frequency Response Limits -Playback-

PHONE OUTPUT CHECK

1. Place OUTPUT controls at the Specified Level Setting (400 Hz signal at -8 dB).
2. Connect an 8Ω non inductive resistor across the headphone output. Connect level meter across the resistor.
3. Level meter should indicate -24 dB ±2 dB.

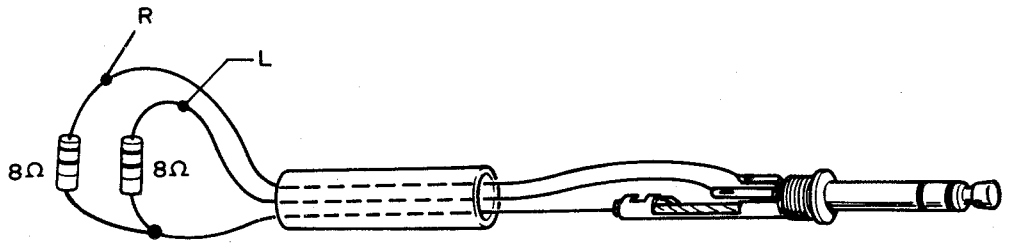


Fig. 7-5 Headphone Connecting Resistor

MONITOR PERFORMANCE

SPECIFIED INPUT LEVEL SETTING

LINE Input

1. Connect an AF oscillator to the LINE IN jacks.
2. Place MONITOR switch in SOURCE position.
3. Apply a 400 Hz signal -18 dB at LINE IN jacks.
4. Turn LINE controls fully clockwise, then retard the LINE controls to obtain the specified output level of -8 dB at the OUTPUT jacks.

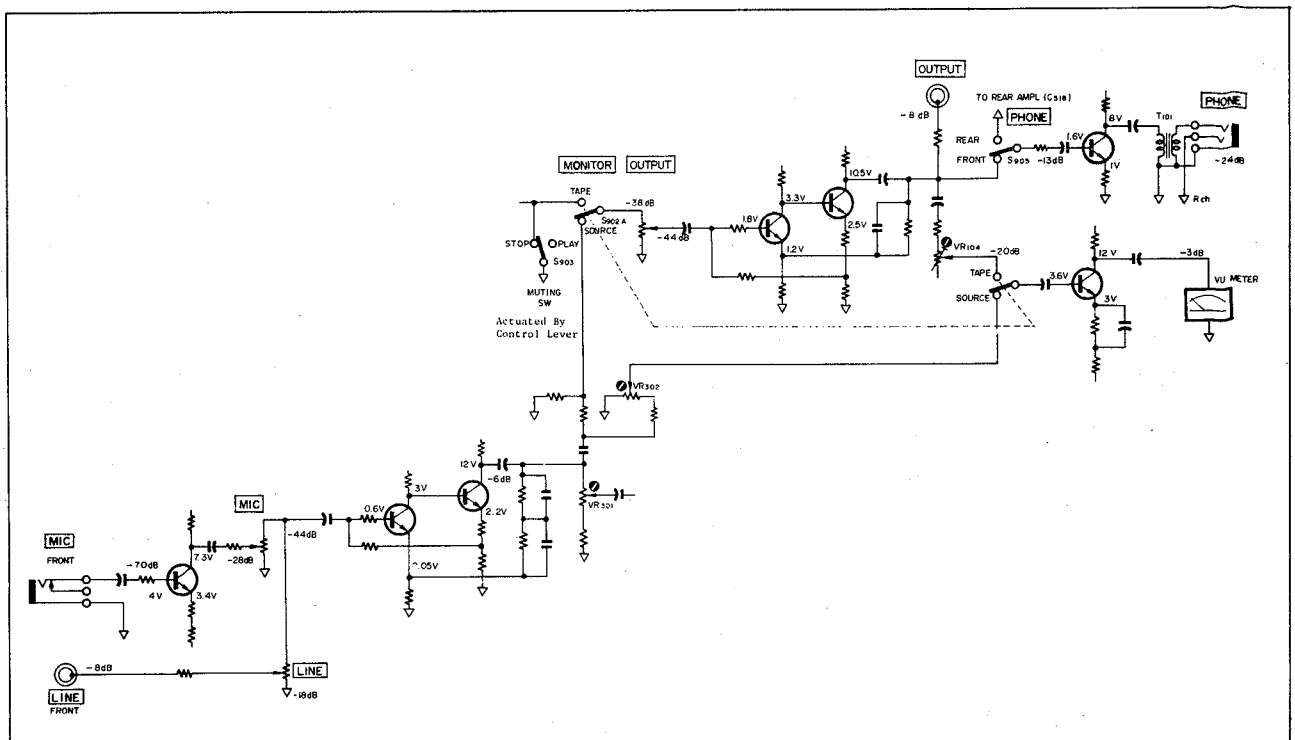
MIC Input Check

5. After adjusting LINE controls, apply a 400 Hz signal at -60 dB to the MIC IN jacks.
6. Rotate the Mic controls clockwise until they give an output of -8 dB (specified output level).
7. Return all MIC IN jacks fully counterclockwise (CCW) to prevent noise insertion.

REC METER LEVEL SET

Verify OUTPUT controls at specified output level.

1. Place MONITOR switch to SOURCE position.
2. Apply a 400 Hz signal at -8 dB to LINE IN jacks.
3. Adjust FRONT VR-302/402, REAR VR-702/802 for 0 VU (±0.5) on the VU meters.



Simplified Diagram -Monitor-

RECORD PERFORMANCE

Before making any adjustments on the record amplifier, be sure that all tests in the HEAD ALIGNMENT, PLAYBACK and MONITOR PERFORMANCE sections have been accomplished and that all levels are correct.

Optimum recording performance (bias levels, recording levels and frequency response) is dependent upon tape characteristics. The TEAC A-1340 is factory set with SCOTCH type 203 (HIGH) and SCOTCH type 150 (NORMAL) tape.

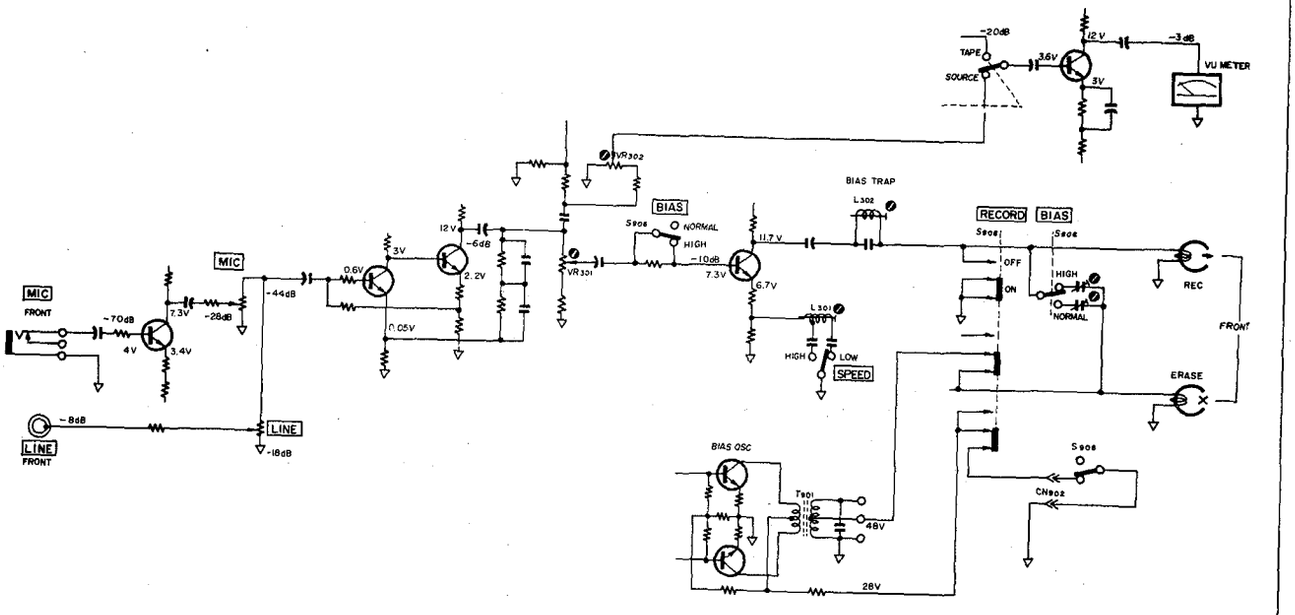


Fig. 7-6 Simplified Diagram -Record-

BIAS TRAP ADJUSTMENT

NOTE

The bias trap tank circuit keeps the bias signal from reaching the record and monitor amplifier and under normal no-signal conditions, voltage should not be present at the OUTPUT jack.

1. Thread a blank tape or block automatic shut-off arm in ON position.
2. Place the REC BIAS switch to HIGH position and place the unit in the RECORD mode.
3. Connect a VTVM or oscilloscope to junction of L-302/C-812 (FRONT); L-402/C-814 (REAR).
4. Adjust L-302/402 for a minimum reading.
5. Adjust REAR L-702/802 as in FRONT position.

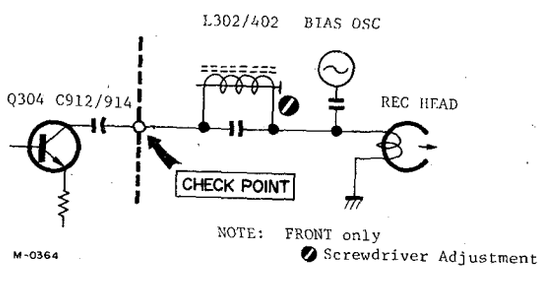


Fig. 7-7 Bias Trap Check Point

BIAS ADJUSTMENT

Perform BIAS TRAP ADJUSTMENT before proceeding.

NOTE

These adjustments are only made at 7-1/2ips tape speed. The bias oscillator frequency is 100 kHz (±10 KHz).

HIGH position

1. Thread record test tape SCOTCH 203 on the unit.
2. Place the BIAS switch to HIGH and place the unit in the record mode.
3. Place the MONITOR switch in the TAPE position.
4. Adjust capacitor FRONT VC-901/903, REAR VC-905/907 for a peak on the level meter.
5. Turn the capacitors clockwise until a decrease of 0.5 dB is obtained.

NORMAL position

6. Thread record test tape SCOTCH 150 on the unit.
7. Place the BIAS switch to NORMAL and place the unit in the record mode.
8. Adjust capacitor FRONT VC-902/904, REAR VC-906/908 as in HIGH position.

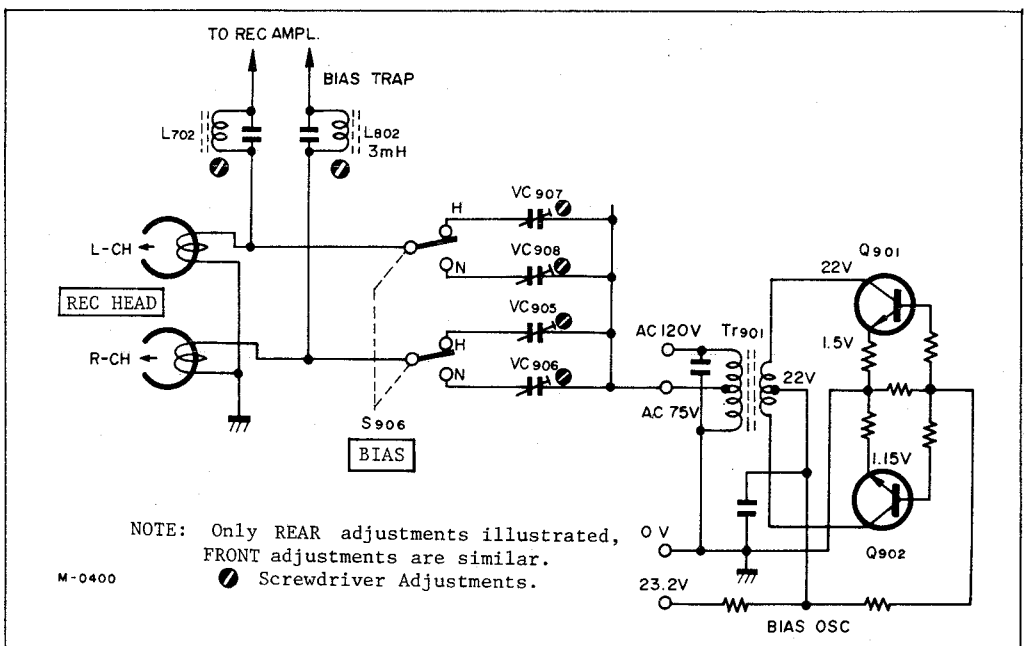


Fig. 7-8 Bias Adjustment Locations
-Diagram-

RECORD HEAD AZIMUTH ADJUSTMENT

Coarse Adjustment

NOTE

The effect of turning the azimuth screw will not immediately register on the level meter. A slight delay will be noticed. Therefore, the screw must be rotated slightly with a pause to see the effect. (Delay is caused by the distance between the Record and Playback heads.)

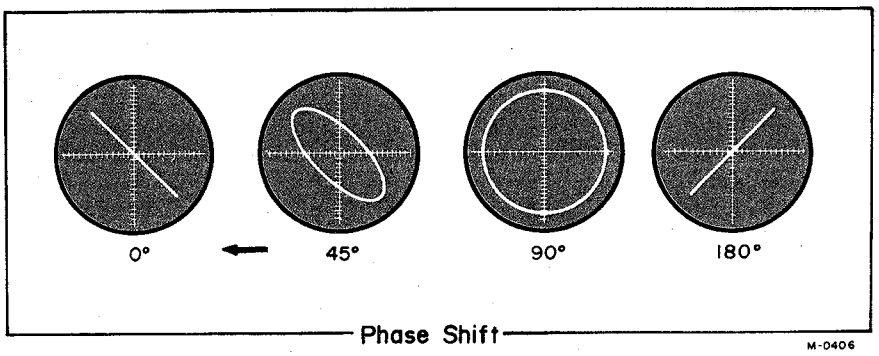
1. Connect a level meter to the OUTPUT jack and an AF oscillator to the LINE IN jack.
2. Place the MONITOR switch to SOURCE and adjust the AF oscillator to obtain a signal of 15 dB below the specified output level. (The level meter will indicate -23 dB.)
3. Make certain that the LINE control is at the specified input level position, then set the AF oscillator to 10 kHz.
4. Thread a record test tape on the unit.
5. Place the MONITOR switch in the TAPE position.
6. While recording adjust the azimuth screw for maximum indication on the level meter.

Fine Adjustment

NOTE

It is absolutely essential to accomplish the coarse adjustment before performing the fine adjustment, to avoid phase error larger than 45° (CH1 and CH3), 90° (CH2 and CH4).

7. Connect the test equipment as shown in Fig. 7-2.
8. Apply a 7.5 kHz signal at -23 dB to the LINE IN jacks and record this signal.
9. Carefully adjust the azimuth screw until the oscilloscope shows the signal to be in phase.
10. Secure the screw with a drop of LOCTITE.



RECORD LEVEL SET

The OUTPUT controls must be at the specified output level position (-8 dB at OUTPUT jacks).

1. Apply a 400 Hz signal at -8 dB to the LINE IN jack.
2. Thread record test tape SCOTCH 203 on the unit, then set the REC BIAS switch to HIGH position.
3. Place the unit in the 4 CHAN RECORD MODE with the MONITOR switch in the TAPE position, LINE controls fully clockwise.
4. Adjust FRONT VR-301/401, REAR VR-701/801 for -8 dB signal at OUTPUT jacks.

OVERALL FREQUENCY RESPONSE

HIGH position

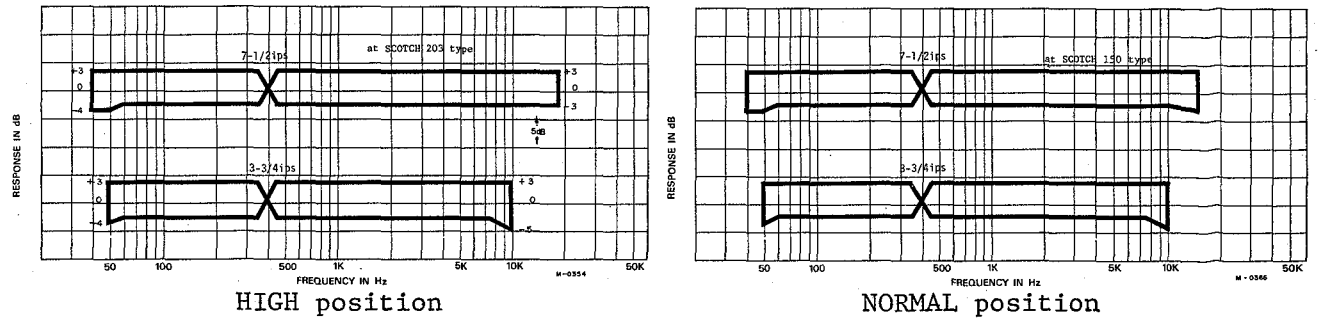
1. Thread a blank SCOTCH 203 tape on unit, place BIAS switch at HIGH, tape SPEED at HIGH, MONITOR switch at TAPE.
2. Apply a signal swept from 50 Hz to 15 kHz at -23 dB to LINE IN jacks and record it on the test tape.
3. Adjust FRONT L-301/401, REAR L-701/801 for best response. (Fig.7-9).
4. Repeat above procedures for 3-3/4ips using a signal swept from 50 Hz to 7.5 kHz.

NORMAL position

5. Thread a blank SCOTCH 150 tape on the unit. Place BIAS switch at NORMAL position, tape SPEED at HIGH.
6. Repeat overall response check at both speeds.

NOTE

If there is more than 2 dB difference in frequency response between 2-channel and 4-channel operation, adjust L-901/902 at 10 KHz,7-1/2 ips.



HIGH position NORMAL position

Fig. 7-9 Frequency Response limits -Record-

SIGNAL-TO-NOISE RATIO

PLAYBACK

IMPORTANT

OUTPUT controls should be at the Specified Output Level settings. The signal to noise ratio must meet factory standards. The values given are obtained using an unweighted level meter while the motor has voltage applied but is not rotating. The values are with reference to a 3% THD peak recording level.

1. Thread a blank tape on the unit, leaving the tape outside the capstan and pinch roller.
2. Place the unit in the PLAY mode (►). Depress and lock in PAUSE button.
3. The level meter connected to the OUTPUT jacks should indicate -58 dB or less.
4. This corresponds to a signal to noise ratio of 50 dB(difference between residual noise -58 dB and specified output level -8 dB for 1% THD). For a 3% THD signal to noise ratio, 6 dB is added, giving 56 dB(3% THD is 6 dB above 1% THD level).

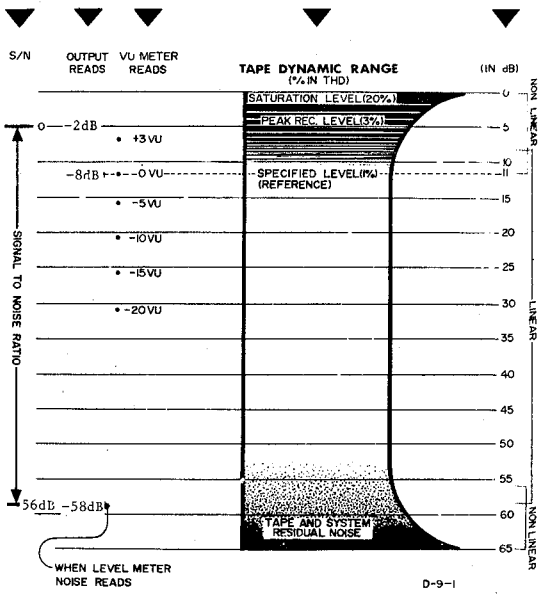


Fig. 7-10 Signal/Noise Computation

OVERALL

IMPORTANT

Clean and demagnetize the heads before proceeding. It is extremely important that all tests described in the preceding paragraphs have been completed and that all controls are left at their adjusted settings.

1. Thread a blank test tape (SCOTCH 203) on the unit.
2. Remove the AF oscillator from the LINE IN jacks.
3. Place the unit in the RECORD mode with no signal applied. Note the point on the index counter where recording begins.
4. Rewind the tape to the beginning point and play it back.
5. The noise level as indicated on the level meter should be -56 dB or less.

NOTE

Bias, erase and playback amplifier noise are all included in this measurement.
All frequencies between 40 Hz and 15 kHz are measured unweighted.

ERASE EFFICIENCY

NOTE

To measure erase efficiency, a 1 kHz Band Pass Filter (TEAC M-204 CL filter) must be used.

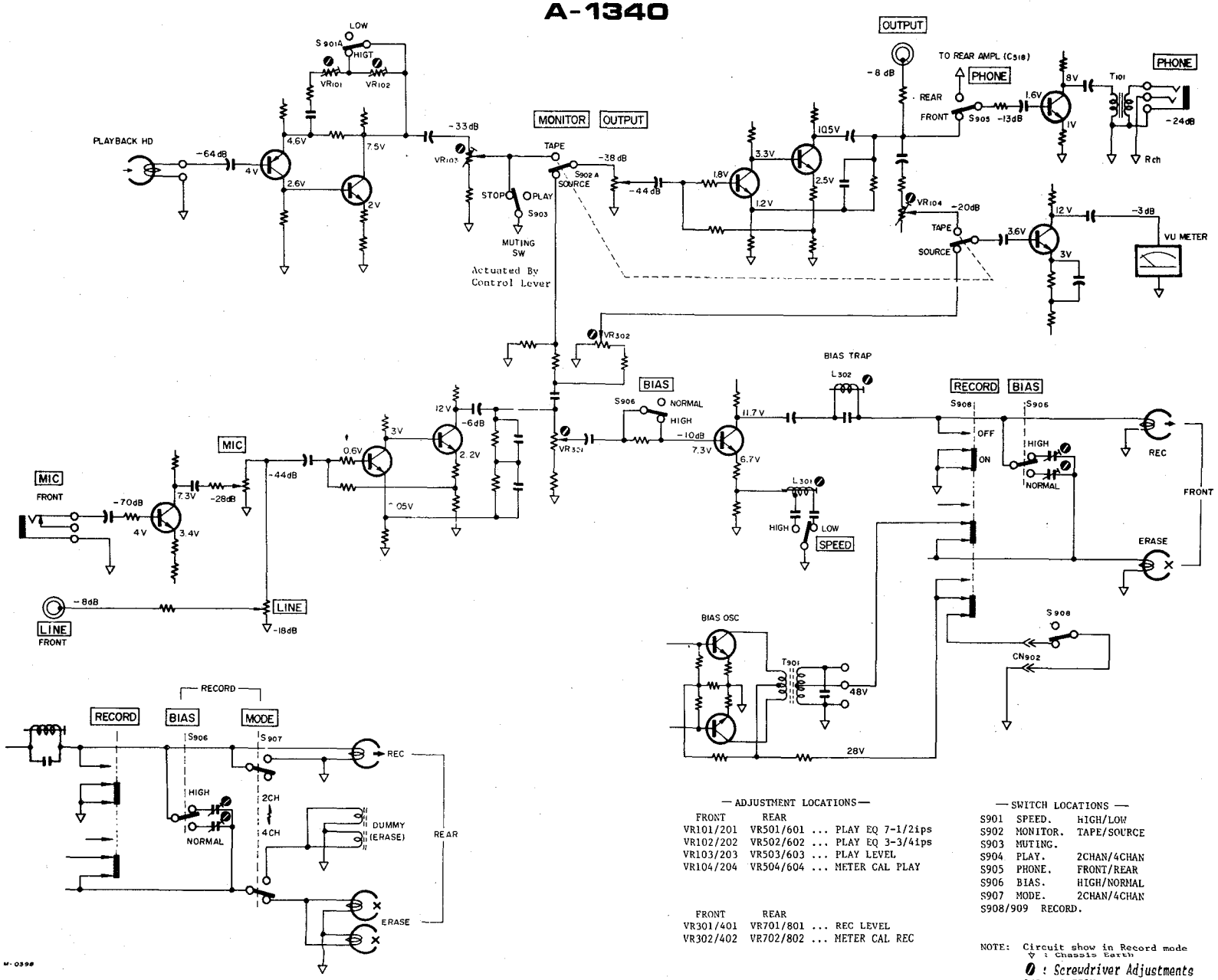
1. Apply a 1 kHz signal at 0 dB to the LINE IN jacks.
2. Place the unit in RECORD mode and record this signal.
3. Rewind the recording to the beginning and remove the AF oscillator from the LINE IN jacks.
4. Place the unit in RECORD mode and record over this portion of tape again.
5. Rewind the tape to the starting point and connect a level meter to the OUTPUT jack through the 1 kHz band pass filter.
6. Play the erased portion of the tape.
7. The level meter should indicate -60 dB or less.

LEVEL VARIATION

1. Thread a blank reel of High Output tape (SCOTCH 203), and select 7-1/2ips.
2. Record a variety of frequencies, such as 400 Hz, 2 kHz, 5 kHz, 8 kHz, 10 kHz, etc., at the specified input setting with the BIAS switch HIGH.
   Record approximately 30 seconds at each frequency.
3. During playback, the output level should not vary more than 0.5 dB at 400 Hz, 1 dB at 5 kHz to 10 kHz.
4. Repeat steps 2 and 3 with the deck at 3-3/4ips. The tolerances are the same.

8 SIMPLIFIED DIAGRAM (WITH VOLTAGE READINGS)

A-1340



— ADJUSTMENT LOCATIONS —

FRONT	REAR	
VR101/201	VR501/601	... PLAY EQ 7-1/2ips
VR102/202	VR502/602	... PLAY EQ 3-3/4ips
VR103/203	VR503/603	... PLAY LEVEL
VR104/204	VR504/604	... METER CAL PLAY

FRONT	REAR	
VR301/401	VR701/801	... REC LEVEL
VR302/402	VR702/802	... METER CAL REC

— SWITCH LOCATIONS —

S901	SPEED.	HIGH/LOW
S902	MONITOR.	TAPE/SOURCE
S903	MUTING.	
S904	PLAY.	2CHAN/4CHAN
S905	PHONE.	FRONT/REAR
S906	BIAS.	HIGH/NORMAL
S907	MODE.	2CHAN/4CHAN
S908/909	RECORD.	

NOTE: Circuit show in Record mode
▽ : Chassis Earth
Ø : Screwdriver Adjustments
0dB = 0.775V

9 PREVENTIVE MAINTENANCE

LUBRICATION INSTRUCTIONS

For maximum service life and optimum performance, lubricate the parts listed below after every 2,000 hours of service. Use only a light machine oil of good quality, such as TEAC'S TZ-262 or TZ-265.

1. Oil the motor through the oiling tube. Apply approximately 1cc.
2. Apply 2 drops to the Idler Shaft bearings.
3. Apply 2 drops to the Pinch Roller Shaft bearing.
4. Apply 1 drop to the Index Counter relay pulley bearing.
5. Apply a medium film of light machine grease to each roller surface on the levers and cams. Avoid lubricating the brake areas.

Any other lubrication should only be done by Factory trained engineers during major overhauls.

CAUTION

Do not over-lubricate. Wipe off all excess lubrication with a cotton swab soaked in alcohol. Excess lubricating fluids would be scattered during operation onto the rubber components which deteriorate when soaked with oil.

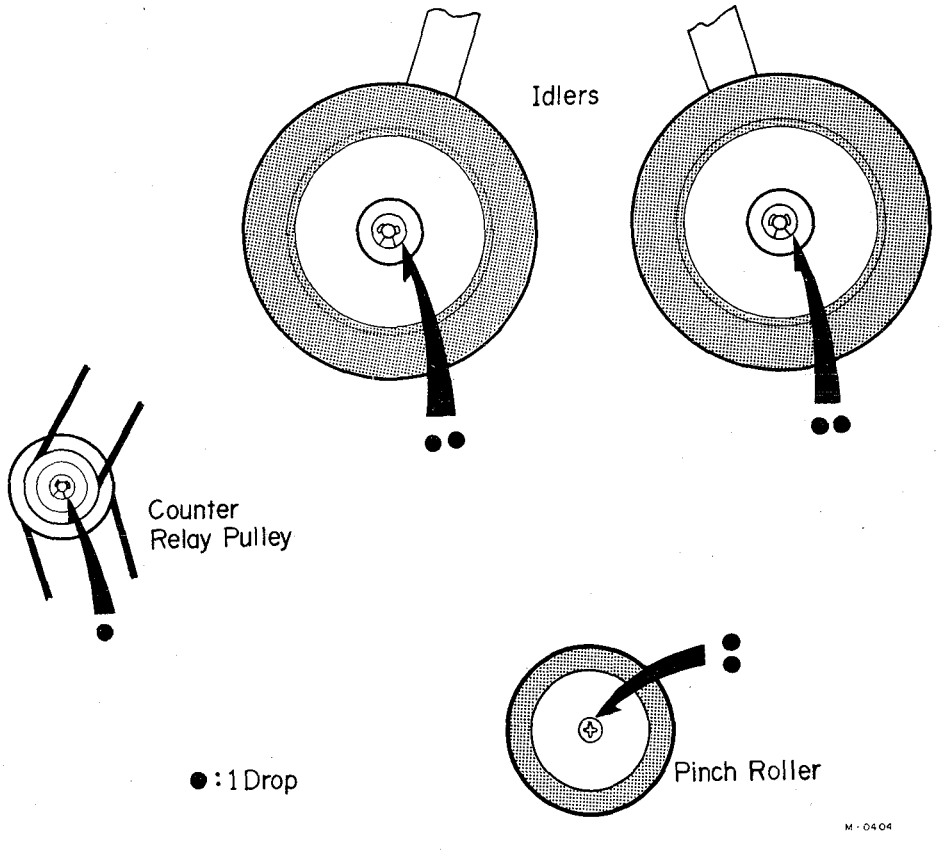


Fig. 9-1 Lubrication Locations

PERIODIC MAINTENANCE

USER MAINTENANCE	INTERVAL	MATERIAL REQUIRED
Head demagnetization	At least monthly	TEAC E-1 Demagnetizer
Cleaning capstan shaft, heads, tape lifters, etc.	Every 8 hours of operation	TZ-251A or TZ-261A
Cleaning pinch roller		TZ-251B or TZ-261B
Lubrication of capstan shaft, tape lifters, pinch roller	Monthly	TZ-252A or TZ-262A
Motor lubrication	Annually	TZ-262A or TZ-265

Internal service and cleaning of the capstan pulley, idlers, flywheel, capstan belt and take-up pulleys should be accomplished only by factory trained technicians during overhaul after extended periods of use.

HEAD DEMAGNETIZATION

The A-1340 tape head should be periodically demagnetized to prevent loss of high frequency response. How frequently to demagnetize depends on the amount of use. Under normal home use heads should be demagnetized monthly.

Using the TEAC E-1 demagnetizer, bring the demagnetizer tip close to the head playback surfaces, slowly move it up and down several times. Gradually withdraw the demagnetizer tip from the head area. Turn off power to the demagnetizer only after it has been drawn at least 12 inches away from the head area.

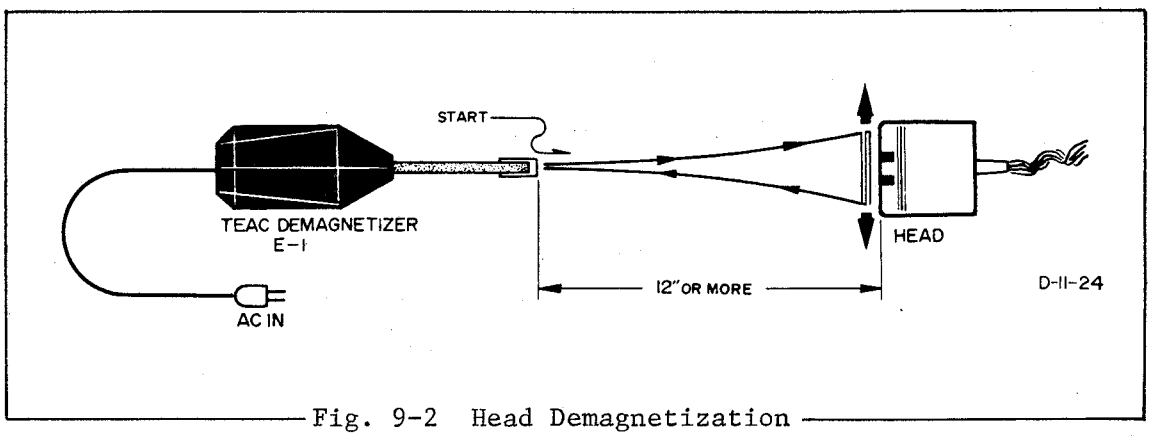


Fig. 9-2 Head Demagnetization

10 TROUBLE SHOOTING

The following guide lists specific difficulties that could occur in the A-1340. Several possible causes are listed for each malfunction. Visually inspect the unit for any damage such as broken or burned components or wiring, loose connections, etc.

MALFUNCTION	POSSIBLE SOURCE OF TROUBLE	CORRECTIVE PROCEDURE
Capstan fails a turn	Belt off or slipping, line fuse,safety SW(S915), play SW(S914), rewind SW(S910), (S911), speed select SW (S901), capstan motor.	Replace the defective components.
Control lever does not lock	Safety SW(S915), resistor (R907), diode(D903), solenoid(SOL 901), solenoid mis-adjustment.	Replace the defective components. Adjust.
Fast forward or rewind mode inoperative	Rewind SW(S910),(S911).	Replace the defective components.
Incorrect tape speed	Dirty capstan shaft, capacitor(C918).	Clean or replace defective components.
Wow and flutter	Defective tape, dirty or defective pinch roller, oily or defective belt, capstan, take-up reel assy.	Clean or replace defective components. Adjust reel tension.
No record and/ or no erase	Bias OSC, record selector SW(S908,909), head.	Replace the defective components.
No playback	Dirty head, head, playback ampl., muting SW(S903).	Replace the defective components.

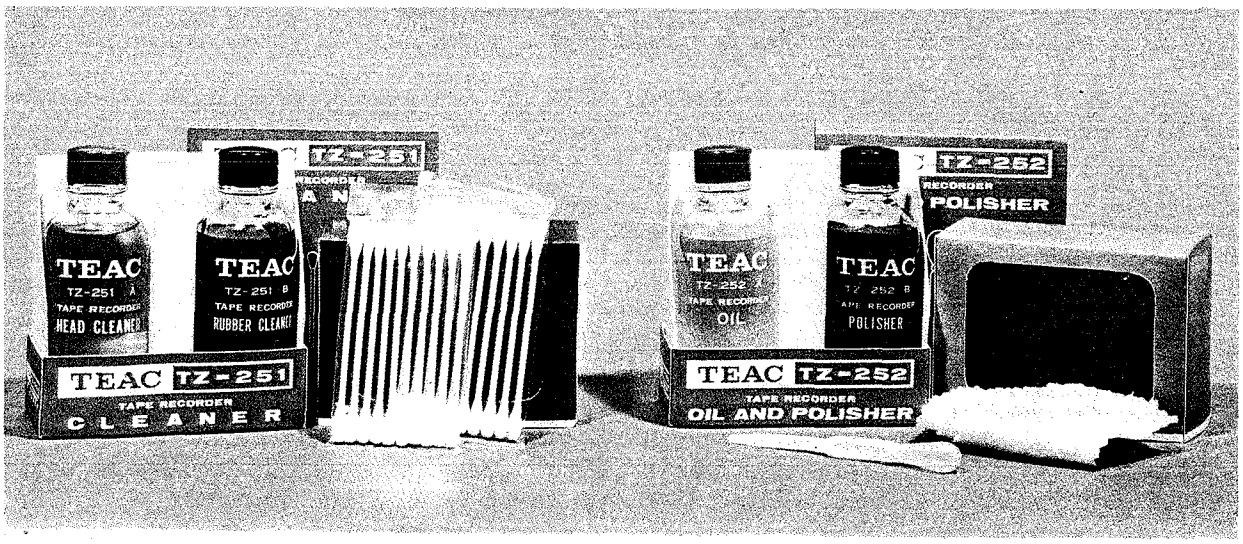
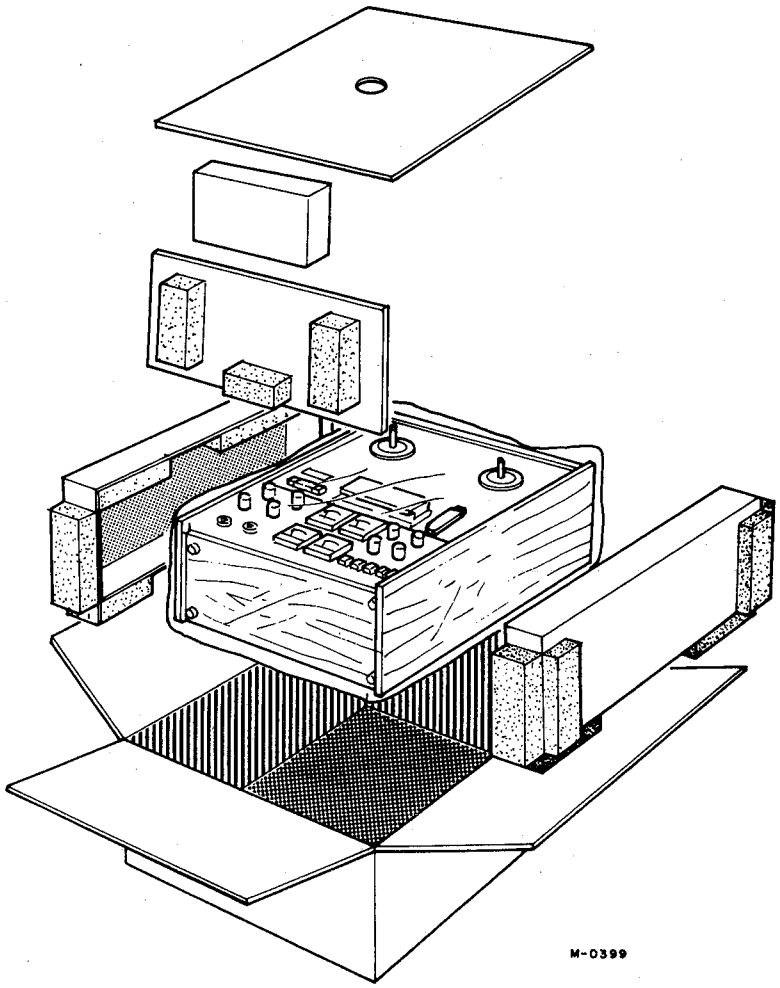


Fig. 9-3 Maintenance Equipment

11 PACKING FOR SHIPMENT AND WARRANTY

If the unit is to sent back to the TEAC factory (Service Department). for repair, carefully pack as shown below.



WARRANTY

Your TEAC equipment has been manufactured under the strictest quality control. Its normal operation is under warranty. However, warranty terms may vary with the country (area) in which it was purchased and for different models of equipment. The warranty terms are fully described on the warranty card. Please read the card for complete details. Include a copy of the warranty in the package when you return the equipment to an Authorized Service Center.

TEAC®

A-1340

4CHANNEL SIMUL-TRAK STEREO TAPE DECK PARTS LIST

REPLACEMENT INFORMATION

Replacement part are available through your nearest TEAC dealer or directly from the TEAC office.
Changes are constantly being made to make TEAC products better and more reliable.
Therefore, when ordering parts, always include the following information:

MODEL SERIAL NO. REF NO. PART NO. DESCRIPTION

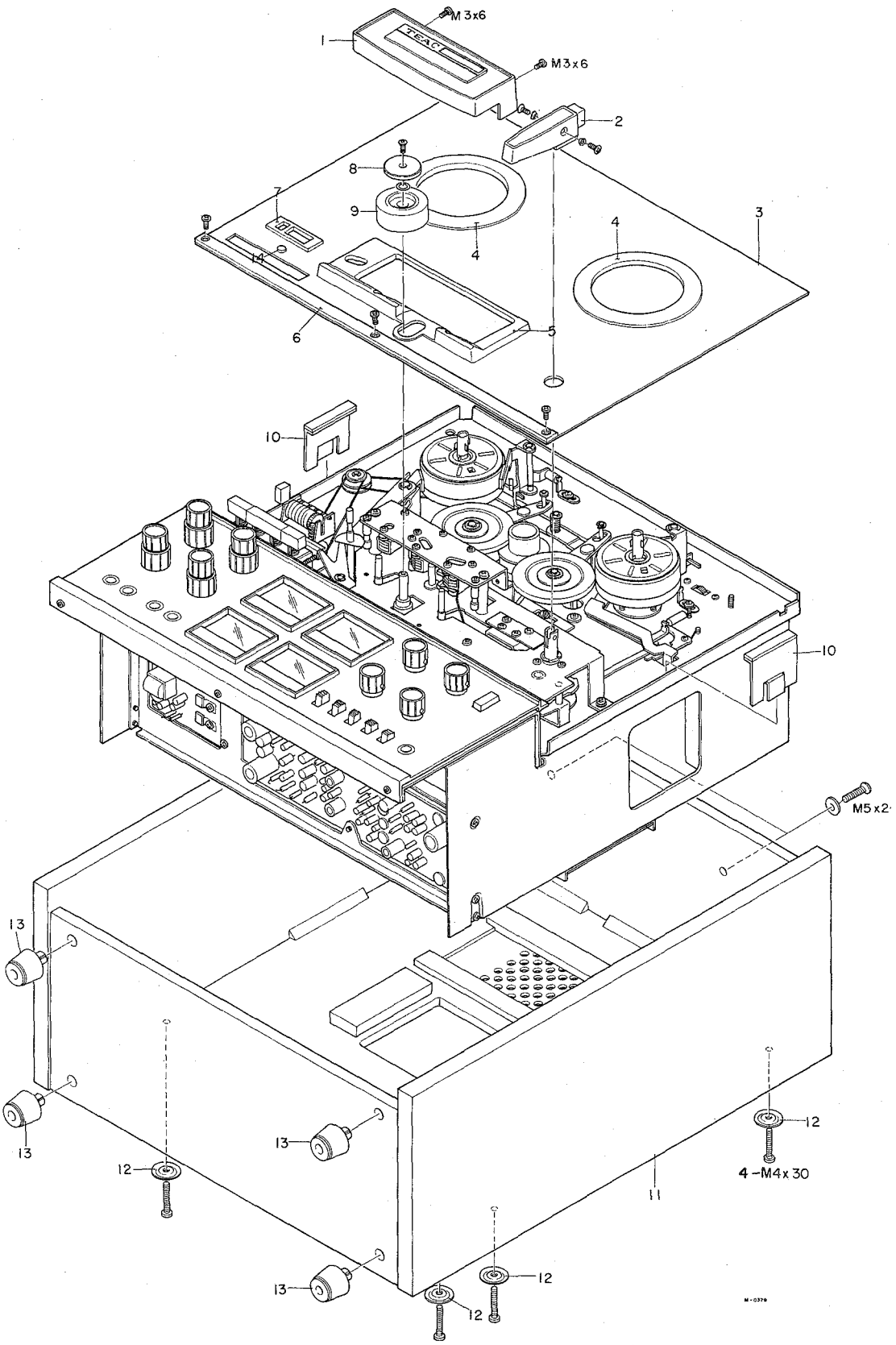
TEAC CORPORATION

MT1340E100

EXPLODED VIEW 1

A-1340

TRIM PARTS



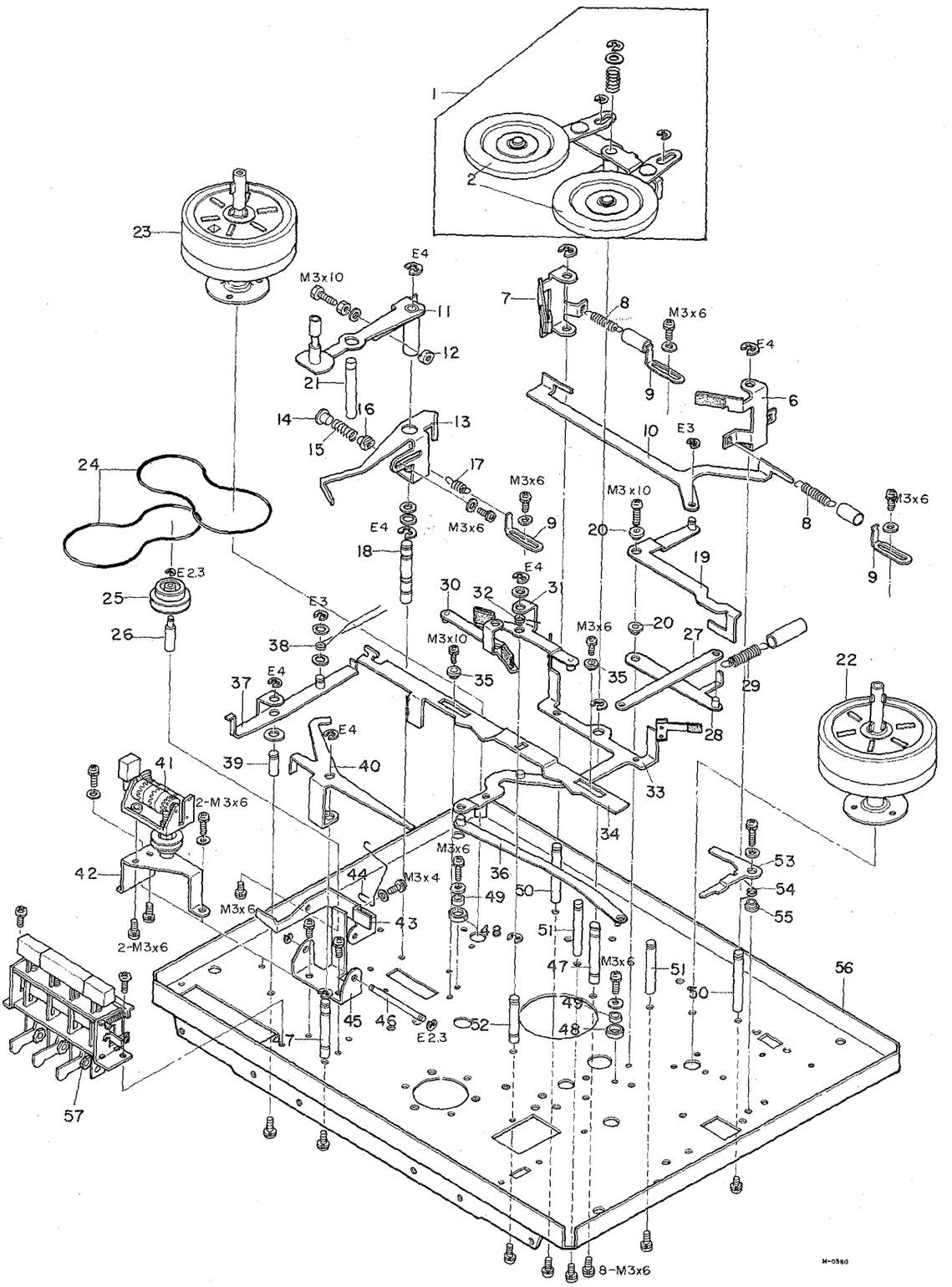
TRIM PARTS

REF. NO.	TEAC PARTS NO.	DESCRIPTION	REVISION 1st	REVISION 2nd
1- 1	50136581	Head Housing		
1- 2	50841540	Control Lever Assy		
1- 3	50117280	Trim Panel		
1- 4	50162971	Escutcheon, Reel		
1- 5	50136571	Housing Base		
1- 6	50117310	Trim Sash		
1- 7	50162980	Escutcheon, Counter		
1- 8	50142340	Cap, Pinch Roller		
1- 9	50141690	Pinch Roller		
1-10	50820091	Plate, Panel Rest A		
1-11	50288400	Case, Wooden		
1-12	50287600	Washer		
1-13	50332070	Mount Foot		
1-14	50277850	Lens, Lamp		

EXPLODED VIEW 2

A-1340

ABOVE THE MAIN CHASSIS



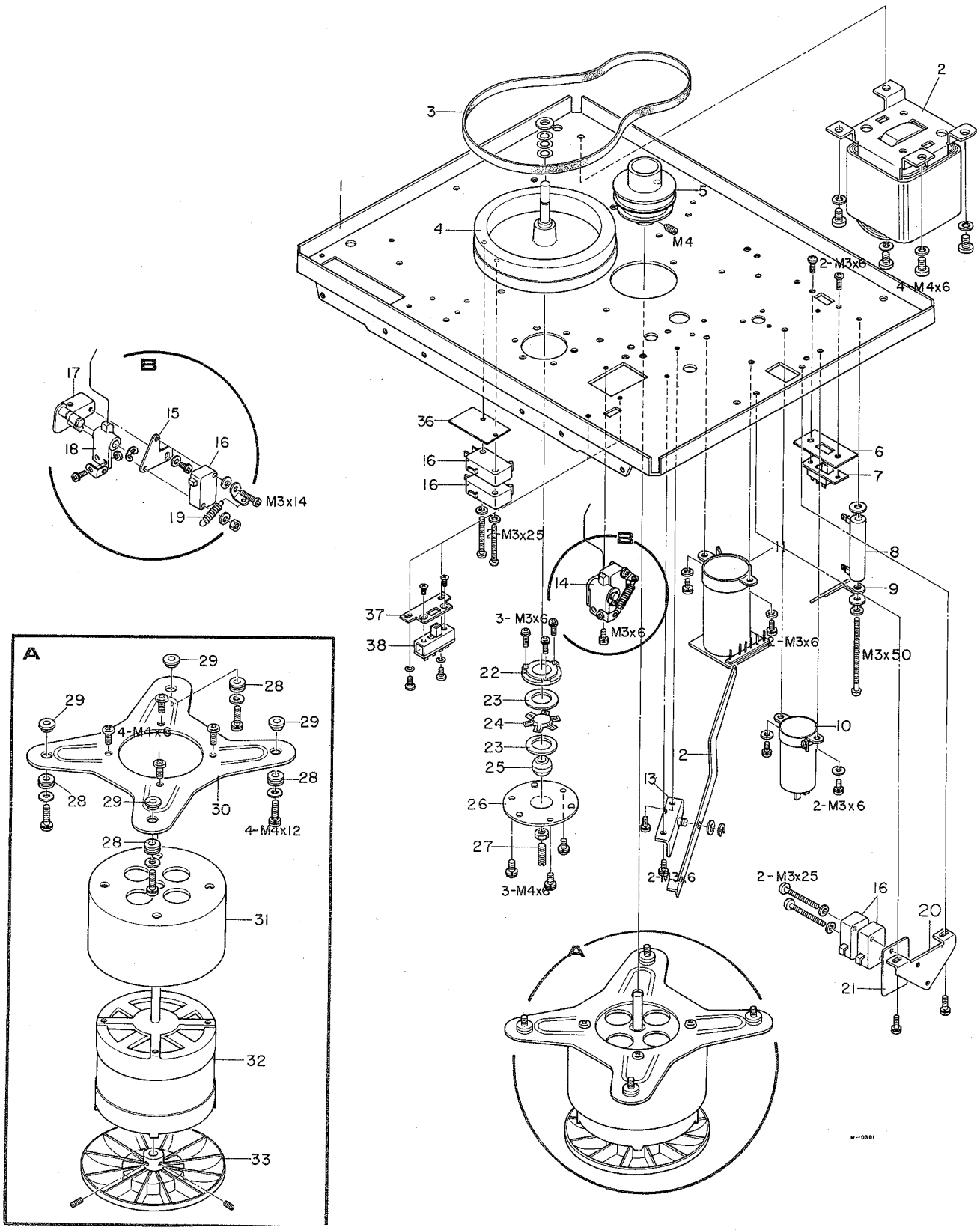
ABOVE THE MAIN CHASSIS

REF. NO.	TEAC PARTS NO.	DESCRIPTION	REVISION 1st	REVISION 2nd
2- 1	50840961	Take-up Idler Assy		
2- 2	50840970	Idler Assy		
2- 6	50840560	Brake Lever A Assy		
2- 7	50840580	Brake Lever B Assy		
2- 8	50840610	Spring, Brake Lever		
2- 9	50840620	Brake Lever Spring Retainer		
2-10	50840550	Brake Actuator Lever C		
2-11	50840520	Servo Lever B Assy		
2-12	50840800	Collar, Servo Brake Adjust		
2-13	50840720	Servo Lever A Assy		
2-14	50840810	Shoulder Washer, A, Brake Spring		
2-15	50840840	Spring, B, Servo Brake		
2-16	50840820	Shoulder Washer, B, Brake Spring		
2-17	50840830	Spring, B, Servo Brake		
2-18	50840860	Shaft, Servo Lever		
2-19	50840490	Brake Actuator Lever B		
2-20	50840880	Shaft, Operation Lever		
2-21	50840090	Servo Lever Stopper		
2-22	50840393	Take-up Pulley Assy, R		
2-23	50490821	Take-up Pulley Assy, L		
2-24	50840210	Belt, Counter		
2-25	50840190	Pulley, Counter Relay		
2-26	50840050	Shaft, Relay Pulley		
2-27	50840480	Brake Actuator Lever A		
2-28	50840630	Brake Actuator Lever D		
2-29	50840530	Spring, Actuator Lever		
2-30	50840650	Flywheel Brake Lever A Assy		
2-31	50840670	Flywheel Brake Lever B Assy		
2-32	50823260	Spring, B, Flywheel		
2-33	50840940	Idler Actuator Lever Assy		
2-34	50840870	Operation Lever		
2-35	50840880	Shoulder Washer, Operation Lever		
2-36	50840930	Coupling Lever		
2-37	50841610	Push Button Lock Lever		
2-38	50840910	Spring, Lock Lever Coupling		
2-39	50841730	Shaft, Lock Lever		
2-40	50840270	Pause Release Lever		
2-41	50585140	Counter		
2-42	50840200	Bracket, Counter Retainer		
2-43	50840240	Pause Lever		
2-44	50840260	Spring, Pause Lever		
2-45	50840250	Bracket, Pause Lever Retainer		
2-46	50840080	Shaft, Pause Lever		
2-47	50840070	Shaft, Release Lever		
2-48	50840890	Operation Lever Roller		
2-49	50840900	Shaft, Operation Lever Roller		
2-50	50841950	Shaft, Brake Lever		
2-51	50840060	Shaft, Idler Guide		
2-52	50840040	Shaft, Flywheel Brake		
2-53	50840540	Brake Release Lever		
2-54	50840510	Spring, Brake Release Lever		
2-55	50840880	Shaft, Operation Lever		
2-56	50236970	Chassis, Main		
2-57	50841800	Push Switch Assy		

EXPLODED VIEW 3

A-1340

BELOW THE MAIN CHASSIS



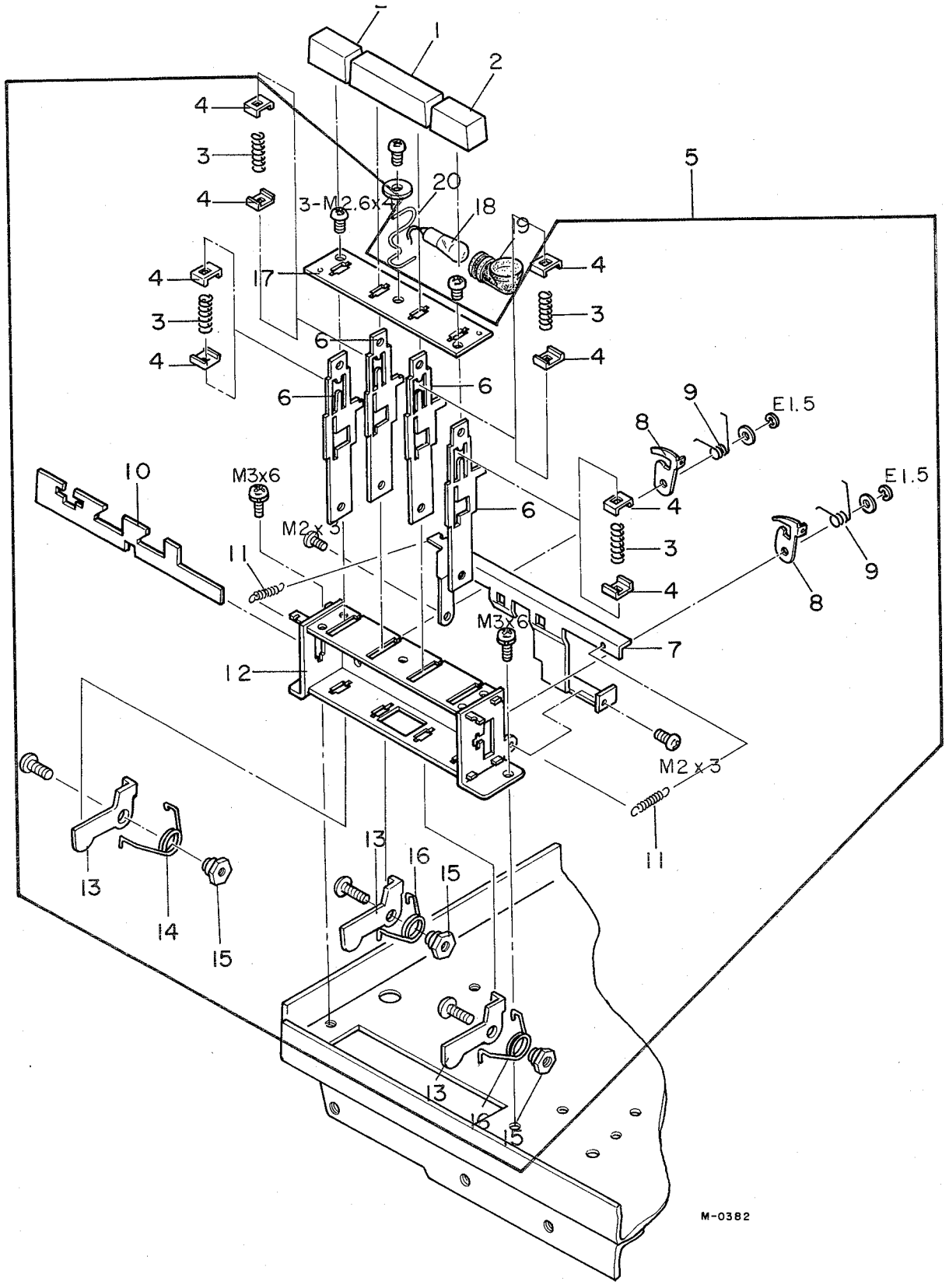
BELOW THE MAIN CHASSIS

REF. NO.	TEAC PARTS NO.	DESCRIPTION	REVISION 1st	REVISION 2nd
3- 1	50236970	Chassis, Main		
3- 2	50562520	Transformer, Power		
3- 3	50840310	Belt, Capstan		
3- 4	50125750	Flywheel Assy		
3- 5	50120560	Motor Pulley Assy		
3- 6	50823610	Washer, Capstan Thrust		
3- 7	50444560	Switch, Slide		
3- 8	50522170	Resistor, Wire Wound 330Ω 10W		
3- 9	50452100	Terminal Strip (1L-2P)		
3-10	50551331	Cap., Elec. 470μF 80V		
3-11	50547200	Cap., Motor Start 2.2+1μF(250V)		
3-12	50841080	Fast Forward Lever		
3-13	50841090	Bracket, F.F. Lever Retainer		
3-14	50840100	Shut-off Switch Assy		
3-15	50840110	Plate, A, Shut-off Switch		
3-16	50446130	Switch, Micro, Shut-off		
3-17	50840120	Bracket, B, Shut-off		
3-18	50840152	Shut-off Switch Lever		
3-19		Spring		
3-20	50840220	Plate, Operation Switch		
3-21	50820080	Insulator Plate, Operation Switch		
3-22	50823560	Metal Cover		
3-23	50823570	Washer, Felt, Capstan		
3-24	50823580	Star Spring, Metal		
3-25	50820140	Capstan Metal		
3-26	50840300	Metal Retainer		
3-27	50823170	Screw, Capstan		
3-28	50820430	Cushion, Rubber, Motor		
3-29	50840330	Shoulder Washer, Motor Plate		
3-30	50840320	Plate, Motor		
3-31	50040290	Motor Shield Case		
3-32	71021030	Motor		
3-33	50123980	Fan		

EXPLODED VIEW 4

A-1340

PUSH BUTTON SWITCH



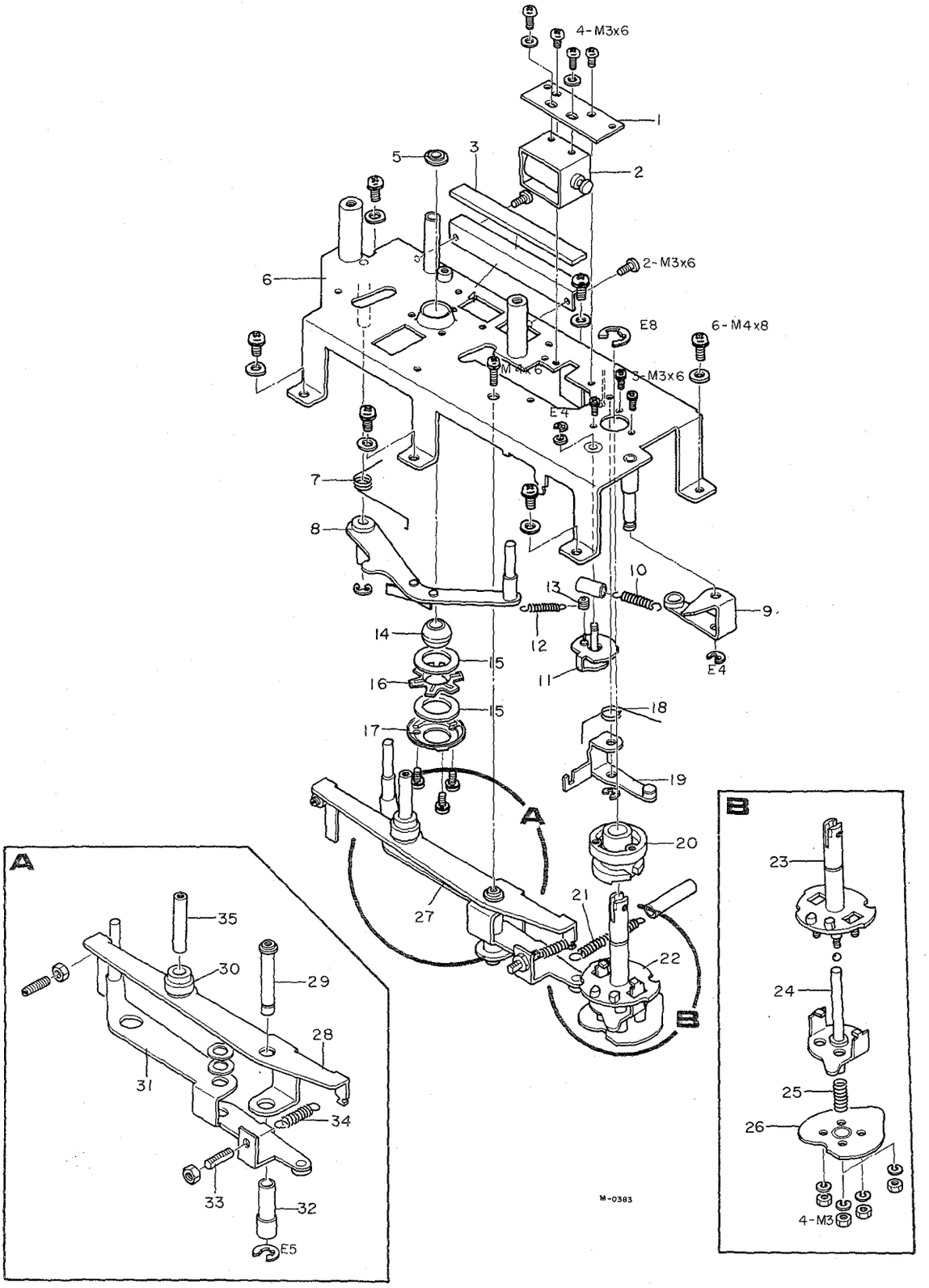
PUSH BUTTON SWITCH

REF. NO.	TEAC PARTS NO.	DESCRIPTION	REVISION 1st	REVISION 2nd
4- 1	50253800	Push Button, Red		
4- 2	50253602	Push Button, Black		
4- 3	50841660	Spring, Push Button		
4- 4	50841640	Push Button Spring Retainer		
4- 5	50841800	Push Switch Assy		
4- 6	50841560	Push Button Lever		
4- 7	50841690	Lock Lever A		
4- 8	50841700	Lock Lever B		
4- 9	50841600	Spring, Lock Lever B		
4-10	50841651	Push Button Limiter		
4-11	50841750	Spring, Lock Lever A		
4-12	50841570	Push Button Base Plate		
4-13	50331990	Switch Push Lever B		
4-14	50841781	Spring, Switch Push B Lever		
4-15	50841770	Shaft, Switch Push Lever		
4-16	50221690	Spring, Switch Push B Lever		
4-17	50841630	Plate, Push Button		
4-18	50414310	Lamp, Record		
4-19	50415241	Lamp Holder		
4-20	50330210	Guide, Lamp		

EXPLODED VIEW 5

A-1340

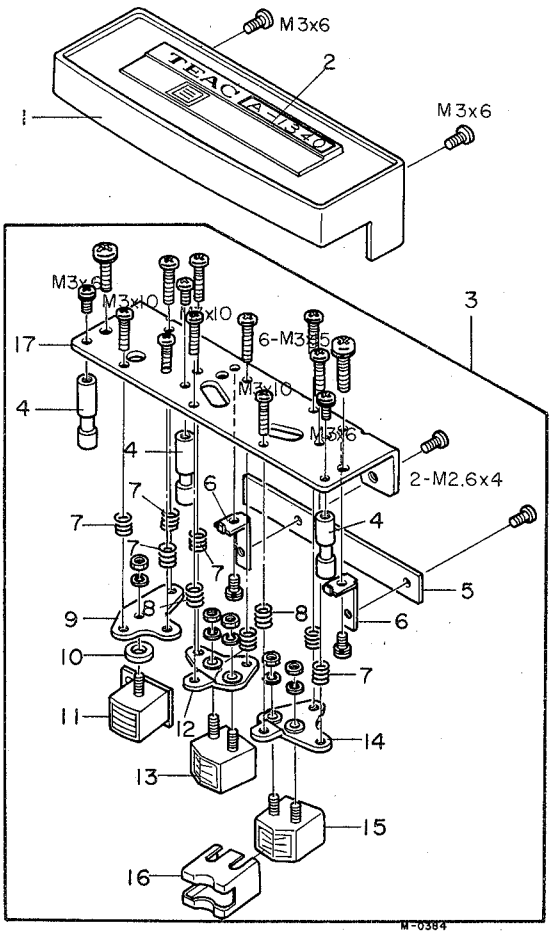
HEAD BASE ASSY



HEAD BASE ASSY

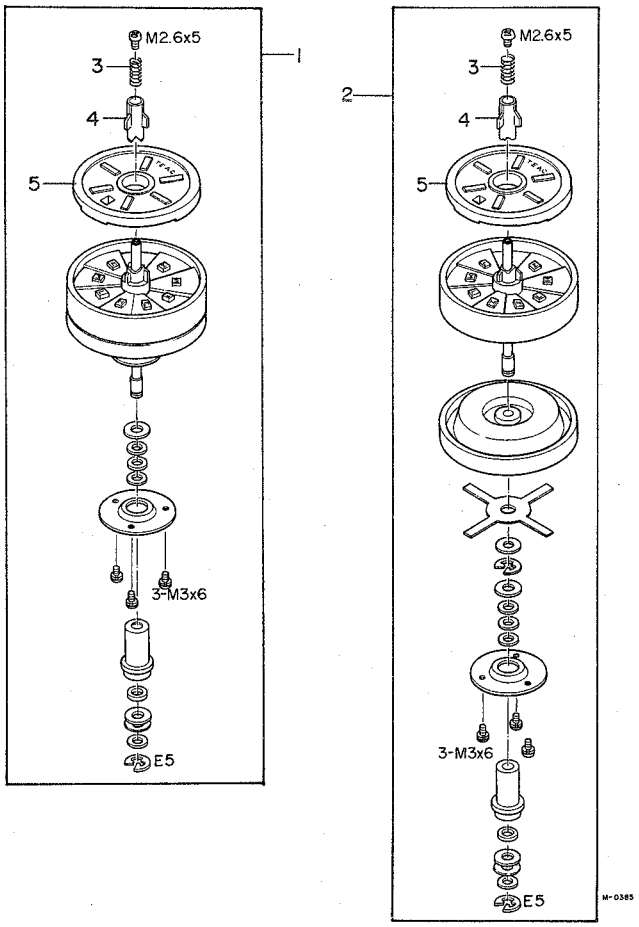
REF. NO.	TEAC PARTS NO.	DESCRIPTION	REVISION 1st	REVISION 2nd
5- 1	50841530	Plate, Solenoid		
5- 2	50616560	Solenoid		
5- 3	50331940	Cushion, Trim Panel Retainer		
5- 4	50130850	Angle, Trim Panel Retainer		
5- 5	50823190	Rubber Oil Seal		
5- 6	50130880	Head Base Plate, B		
5- 7	50221680	Spring Tape Pressure Lever		
5- 8	50221660	Tape Pressure Lever Assy		
5- 9	50841360	Return Lever		
5-10	50841390	Spring, Return Lever		
5-11	50825250	Safty Plate		
5-12	50823420	Spring, Safty Plate		
5-13	50823410	Roller, Safty Plate		
5-14	50820140	Capstan Metal		
5-15	50823570	Felt Washer, Capstan		
5-16	50823580	Star Spring, Metal		
5-17	50823560	Metal Cover		
5-18	50841920	Spring, Click Lever		
5-19	50841301	Click Lever		
5-20	50824601	Control Cam Bushing		
5-21	50824680	Spring, Click Lever		
5-22	50841192	Control Cam A·B·C Assy		
5-23	50841260	Control Cam, C		
5-24	50841240	Control Cam, B		
5-25	50822711	Spring, Take-up Lever Pressure		
5-26	50841200	Control Cam, A		
5-27	50130890	Pinch Roller Lever A·B Assy		
5-28	50841430	Pinch Roller Lever, B		
5-29	50841480	Shaft, Pinch Roller Lever		
5-30	50824510	Cushion, Pinch Roller Shaft		
5-31	50130900	Pinch Roller Lever A Assy		
5-32	50841470	Collar, Pinch Roller Lever		
5-33	50824080	Screw, Pinch Roller Adjust		
5-34	50821220	Spring, Pinch Roller Lever A		
5-35	50141432	Shaft, Pinch Roller		

HEAD ASSY



REF. NO.	TEAC PARTS NO.	DESCRIPTION	REVISION 1st	REVISION 2nd
6- 1	50136581	Head Housing		
6- 2	50266580	Plate, Head Housing		
6- 3	50130940	Head Assy		
6- 4	50841880	Tape Guide, C		
6- 5	50483970	PC Board, Head		
6- 6	50130840	Bracket, Head PC Board		
6- 7	50823280	Spring, Head, C		
6- 8	50841170	Spring, Head, D		
6- 9	50130830	Plate, Erase Head		
6-10	50136591	Spacer, 4-CH Erase Head		
6-11	50664110	Head, Erase		
6-12	50130820	Plate, Record Head		
6-13	50664210	Head, Record		
6-14	50841161	Plate, Playback		
6-15	50664810	Head, Playback		
6-16	50133900	Head Shield, B		
6-17	50130810	Plate, Head Mount Base		

TAKE UP PULLEY



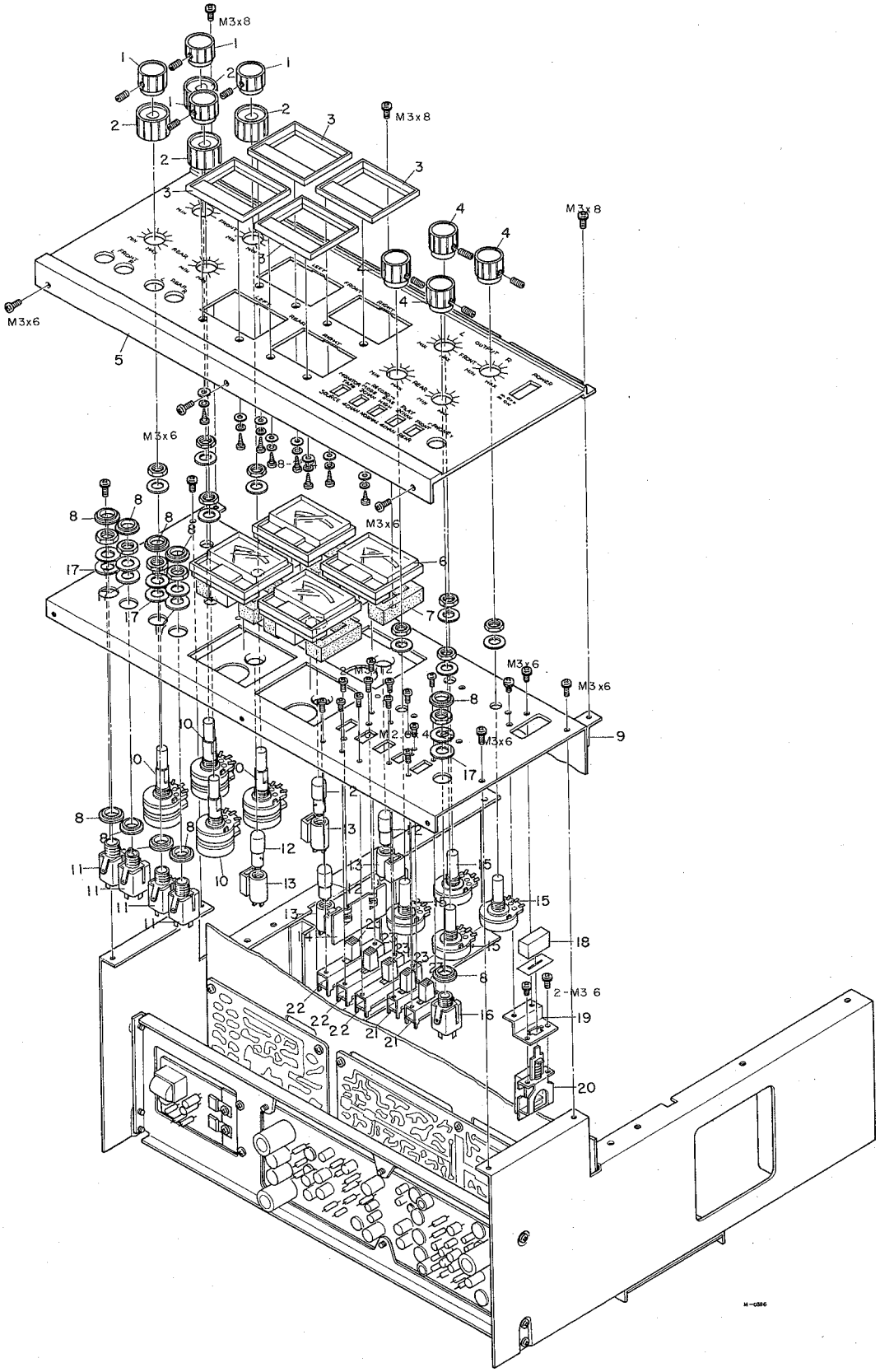
REF. NO.	TEAC PARTS NO.	DESCRIPTION	REVISION 1st	REVISION 2nd
7- 1	50490821	Take-up Pulley Assy, Left		
7- 2	50840393	Take-up Pulley Assy, Right		
7- 3	50840360	Spring, Quik-Lok		
7- 4	50840351	Tip, Reel Holder Shaft		
7- 5	50840371	Mat, Reel Table		

NOTE:
The Take-up Pulley is assembled with very accurate adjustments performed during the assembly process. We no longer list the individual pieces because separate replacement of them would be meaningless. Therefore, we ask you to order the entire assembly for replacement.
An exception to the above is made in the case of Reel Table Mat, Reel Holder Shaft Tip and Spring.

EXPLODED VIEW 8

A-1340

PREAMPLIFIER CHASSIS-1



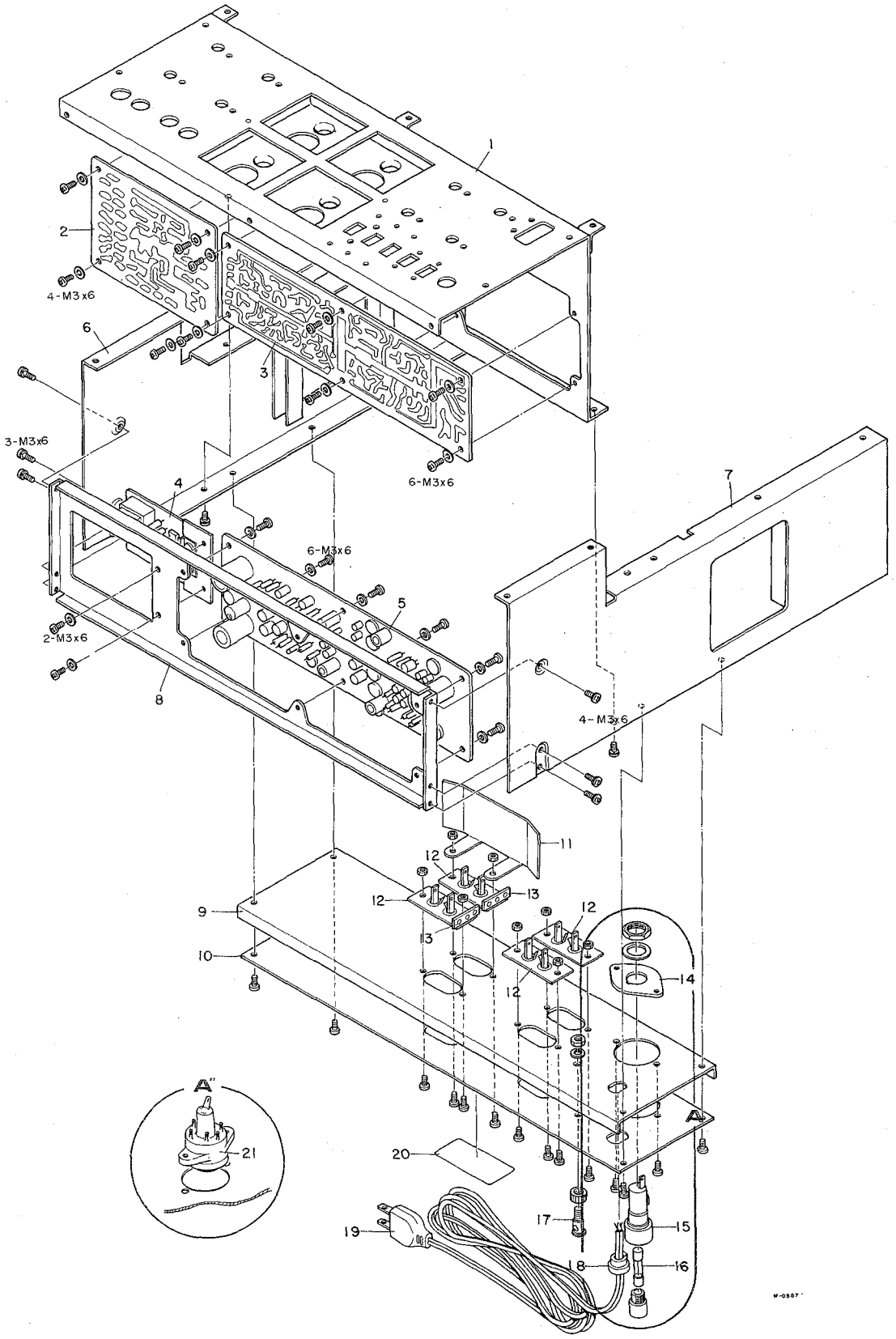
PREAMPLIFIER CHASSIS-1

REF. NO.	TEAC PARTS NO.	DESCRIPTION	REVISION 1st	REVISION 2nd
8- 1	50253300	Knob, Upper		
8- 2	50253400	Knob, Lower		
8- 3	50829591	Escutcheon VU Meter		
8- 4	50253810	Knob, Output		
8- 5	50117290	Trim Panel, Ampl.		
8- 6	50581331	VU Meter		
8- 7	50331950	Cushion, VU Meter		
8- 8	50272610	Insulator Washer, A		
8- 9	50236820	Ampl. Chassis A Assy		
8-10	50535160	Potentiometer, 2-Gang, (Outer Shaft 100kΩ, Inner Shaft 10kΩ)		
8-11	50430230	Jack, Phone, Single		
8-12	50414510	Lamp, 8V, Bayonet Type		
8-13	50415250	Socket, 8V, Lamp		
8-14	50236920	Shield Plate, Switch		
8-15	50535170	Potentiometer, Single 50kΩ A		
8-16	50432440	Jack, Phone, 3 cond.		
8-17	50230560	Washer, Fiber		
8-18	50253530	Push Button		
8-19	50235461	Plate, Push Switch		
8-20	50443210	Switch, Push		
8-21	50440000	Switch, Slide		
8-22	50444460	Switch, Slide		
8-23	50279991	Cap, Slide Switch		

EXPLODED VIEW 9

A-1340

PREAMPLIFIER CHASSIS-2



PREAMPLIFIER CHASSIS-2

REF. NO.	TEAC PARTS NO.	DESCRIPTION	REVISION 1st	REVISION 2nd
9- 1	50236820	Ampl. Chassis A Assy		
9- 2	50490751	PC Board Assy, Bias Adjust		
9- 3	50490761	PC Board Assy, REC/PB Ampl.(Front)		
9- 4	50490730	PC Board Assy, Oscillator		
9- 5	50490761	PC Board Assy, REC/PB Ampl.(Rear)		
9- 6	50236870	Side Panel L Assy		
9- 7	50236880	Side Panel R Assy		
9- 8	50236860	Chassis, Ampl., B		
9- 9	50236930	Panel, Rear		
9-10	50266590	Trim Panel, Rear		
9-11	50332150	Shield Plate		
9-12	50434631	Jack, Pin, 2P		
9-13	50452170	Terminal Strip		
9-14	50419010	Fuse Post Adaptor (DM only)		
9-15	50924500	Fuse Holder (DM only)		
9-16	50411140	Fuse, 2A		
9-17	50454071	Post, Ground Termianl		
9-18	50271670	Grommet, AC Cord		
9-19	50471652	Cord, AC		
9-20	50266601	Identification Plate		
9-21	50412143	Voltage Selector, with Fuse (EX only)		

PRINTED CIRCUIT BOARD AND PARTS LIST

A-1340

REPLACEMENT INFORMATION

Replacement parts are available through your nearest TEAC dealer or directly from the TEAC office.
Changes are constantly being made to make TEAC products better and more reliable.
Therefore, when ordering parts, always include the following information:

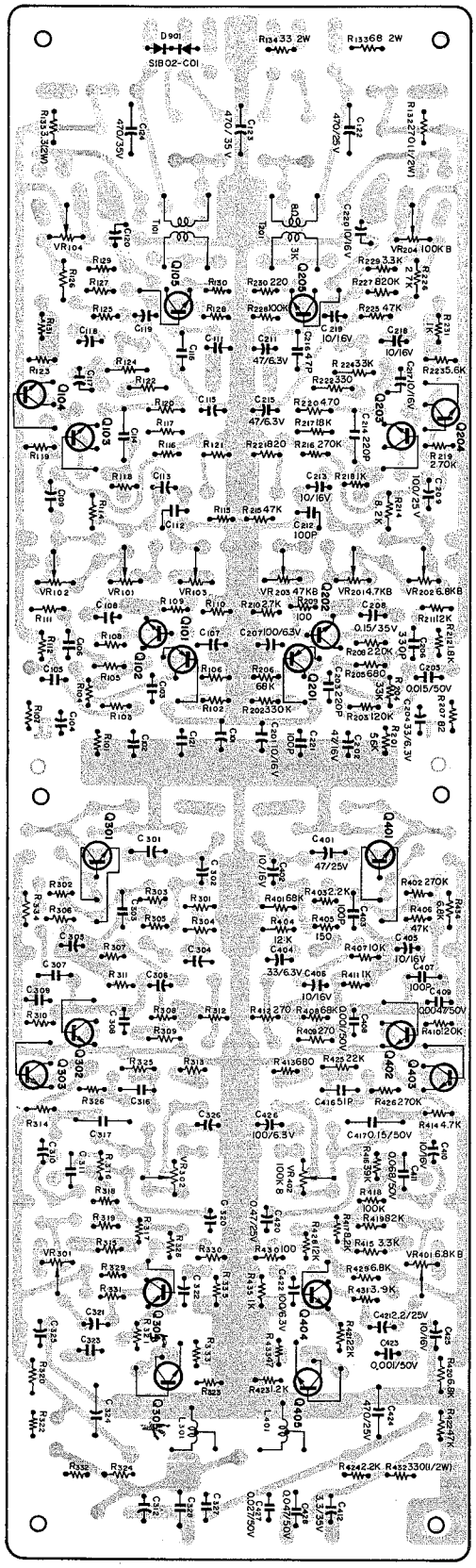
MODEL *SERIAL NO.* *REF.NO.* *PARTS NO.* *DESCRIPTION*

TEAC CORPORATION

PC BOARD

A-1340

RECORD / PLAYBACK AMPLIFIER



RECORD/PLAYBACK AMPLIFIER

NOTE:
PC Board Assy for the REAR channels have components identical to the FRONT channels. Reference numbers have only the first digit changed to match the schematics. Therefore, we are listing only the FRONT channel reference numbers.

CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	REVISION 1st	REVISION 2nd
	50490761	PC Board Assy, REC/PB Ampl.		
	50483670	PC Board, REC/PB Ampl.		
		SILICON TRANSISTORS		
Q101/201	50424280	2SA666-I(T)		
Q102/202	50423770	2SC644(T)		
Q103/203	50423770	2SC644(T)		
Q104/204	50424230	2SC828(T)		
Q105/205	50424220	2SC828(S) or		
	50424230	2SC828(T)		
Q301/401	50423770	2SC644(T)		
Q302/402	50423770	2SC644(T)		
Q303/403	50424230	2SC828(T)		
Q304/404	50423620	2SC828(R) or		
	50424220	2SC828(S)		
Q305/405	50424230	2SC828(T)		
		DIODE		
Sel01	50422260	Silicon Stack SIB02-C01		
		CARBON RESISTORS		
		ALL RESISTORS IN OHMS, 10% TOLERANCE, 1/4 WATTS AND FIXED CARBON FILM TYPE UNLESS OTHERWISE NOTED.		
R101/201	50515610	56k		
R102/202	50515710	330k		
R103/203	50515650	120k		
R104/204	50515570	33k		
R105/205	50515320	680		
R106/206	50515620	68k		
R107/207	50515630	82k		
R108/208	50515680	220k		
R109/209	50515220	100		
R110/210	50515400	2.7k		
R111/211	50515500	12k		
R112/212	50515370	1.8k		

RECORD/PLAYBACK AMPLIFIER *(CONTINUED)*

CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	REVISION 1st	REVISION 2nd
R114/214	50515480	8.2k		
R115/215	50515590	47k		
R116/216	50515700	270k		
R117/217	50515520	18k		
R118/218	50515340	1k		
R119/219	50515700	270k		
R120/220	50515300	470		
R121/221	50515330	820		
R122/222	50515280	330		
R123/223	50515460	5.6k		
R124/224	50515570	33k		
R125/225	50515590	47k		
R126/226	50515560	27k		
R127/227	50515770	820k		
R128/228	50515640	100k		
R129/229	50515410	3.3k		
R130/230	50515260	220		
R131/231	50515340	1k		
R132/232	50515270	270		
R133	50525770	68 2W		
R134	50526050	Wire Wound 33 2W		
R135	50525440	Wire Wound 3.3 1W		
R301/401	50515620	68k		
R302/402	50515700	270k		
R303/403	50515380	2.2k		
R304/404	50515500	12k		
R305/405	50515240	150		
R306/406	50515590	47k		
R307/407	50515490	10k		
R308/408	50515620	68k		
R309/409	50515270	270		
R310/410	50515650	120k		
R311/411	50515340	1k		
R312/412	50515270	270		
R313/413	50515320	680		
R314/414	50515440	4.7k		
R315/415	50515410	3.3k		
R316/416	50515580	39k		
R317/417	50515480	8.2k		
R318/418	50515640	100k		
R319/419	50515480	8.2k		
R320/420	50515470	6.8k		
R321/421	50515540	22k		
R322/422	50515590	47k		
R323/423	50515350	1.2k		
R324/424	50515380	2.2k		
R325/425	50515540	22k		
R326/426	50515700	270k		

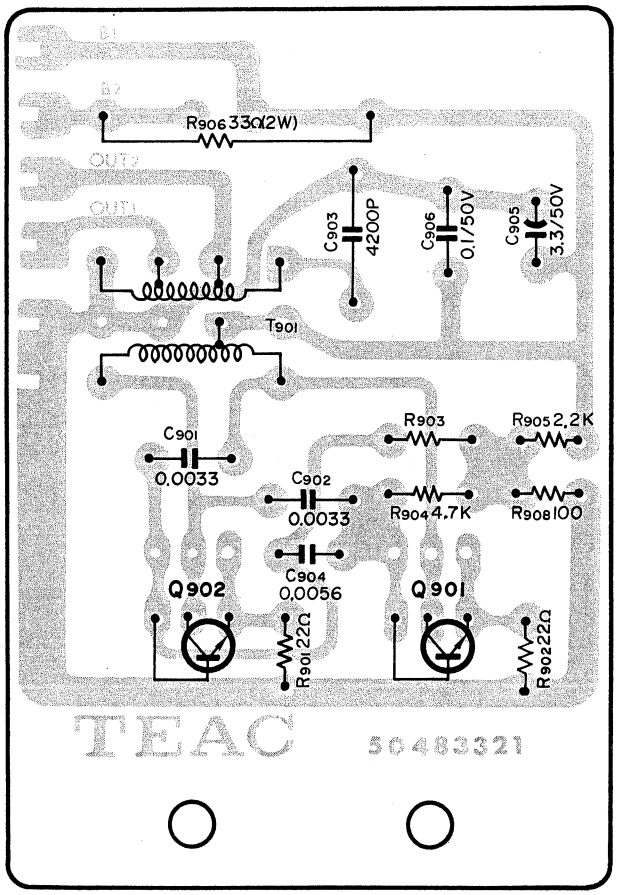
RECORD / PLAYBACK AMPLIFIER *(CONTINUED)*

CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	REVISION 1st	REVISION 2nd
R328/428	50515500	12k		
R329/429	50515470	6.8k		
R330/430	50515220	100		
R331/431	50515430	3.9k		
R332/432	50516280	330 1/2W		
R333/433	50515170	47		
R334/434	50515640	100k		
R335/435	50515340	1k		
R532	50516310	560 (Rear Channels only)		
		TRIMMER RESISTORS		
VR101/201	50533520	4.7kΩ B		
VR102/202	50533580	6.8kΩ B		
VR103/203	50533520	47kΩ B		
VR104/204	50533440	100kΩ A		
VR301/401	50533580	6.8kΩ B		
VR302/402	50533440	100kΩ B		
VR501/502		50kΩ (Rear Channel VR503/504)		
VR905/906	50533580	10kΩ A (Rear Channel VR907/908)		
VR909/910	50533440	100kΩ A(Rear Channel VR911/912)		
		CAPACITORS		
		ALL CAPACITORS IN MICRO FARADS UNLESS OTHERWISE NOTED.		
C101/201	50554050	Elec. 10 16V		
C102/202	50554010	Elec. 47 6.3V		
C103/203	50543650	Polyst. 220pF 50V		
C104/204	50554240	Elec. 33 6.3V		
C105/205	50548870	Mylar 0.015 50V		
C106/206	50543670	Polyst. 330pF 50V		
C107/207	50554230	Elec. 100 6.3V		
C108/208	50546650	Dipped Tantalum 0.15 35V		
C109/209	50554170	Elec. 100 25V		
C110/210				
C111/211	50554010	Elec. 47 6.3V		
C112/212	50543610	Polyst. 100pF 50V		
C113/213	50554050	Elec. 10 16V		
C114/214	50543650	Polyst. 220pF 50V		
C115/215	50554010	Elec. 47 6.3V		
C116/216	50544110	Mica 47pF 50V		
C117/217	50554050	Elec. 10 16V		
C118/218	50554050	Elec. 10 16V		
C119/219	50554050	Elec. 10 16V		

RECORD/PLAYBACK AMPLIFIER *(CONTINUED)*

CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	REVISION 1st	REVISION 2nd
C120/220	50554050	Elec. 10 16V		
C121/221	50543610	Polyst. 100pF 50V		
C122/222	50554420	Elec. 470 25V		
C123/223	50554620	Elec. 470 35V		
C124/224	50554620	Elec. 470 35V		
C301/401	50554490	Elec. 47 25V		
C302/304	50554050	Elec. 10 16V		
C303/403	50543410	High Q 100pF 50V		
C304/404	50554240	Elec. 33 6.3V		
C305/405	50554050	Elec. 10 16V		
C306/406	50554050	Elec. 10 16V		
C307/407		1000pF 50V		
C308/408	50548320	Mylar 0.001 50V		
C309/409	50548130	Mylar 0.0047 50V		
C310/410	50554050	Elec. 10 16V		
C311/411	50549510	Mylar 0.068 50V		
C312/412	50546631	Dipped Tantalum 3.3 35V		
C316/416		51pF 50V		
C317/417	50548310	Mylar 0.15 50V		
C320/420	50549650	Elec. 0.47 16V		
C321/421	50554940	Elec. 2.2 25V		
C322/422	50554230	Elec. 100 6.3V		
C323/423	50548320	Mylar 0.001 50V		
C324/424	50554420	Elec. 470 25V		
C325/425	50554050	Elec. 10 16V		
C326/426	50554230	Elec. 100 6.3V		
C327/427	50548330	Mylar 0.027 50V		
C328/428	50548270	Mylar 0.047 50V		
C522	50554420	Elec. 470 25V (Rear Channels only)		
T101/201	50562141	Transformer, Output 3kΩ:8Ω		
	50566370	Coil, 2.4∿4.2mH Record Record Compensation		

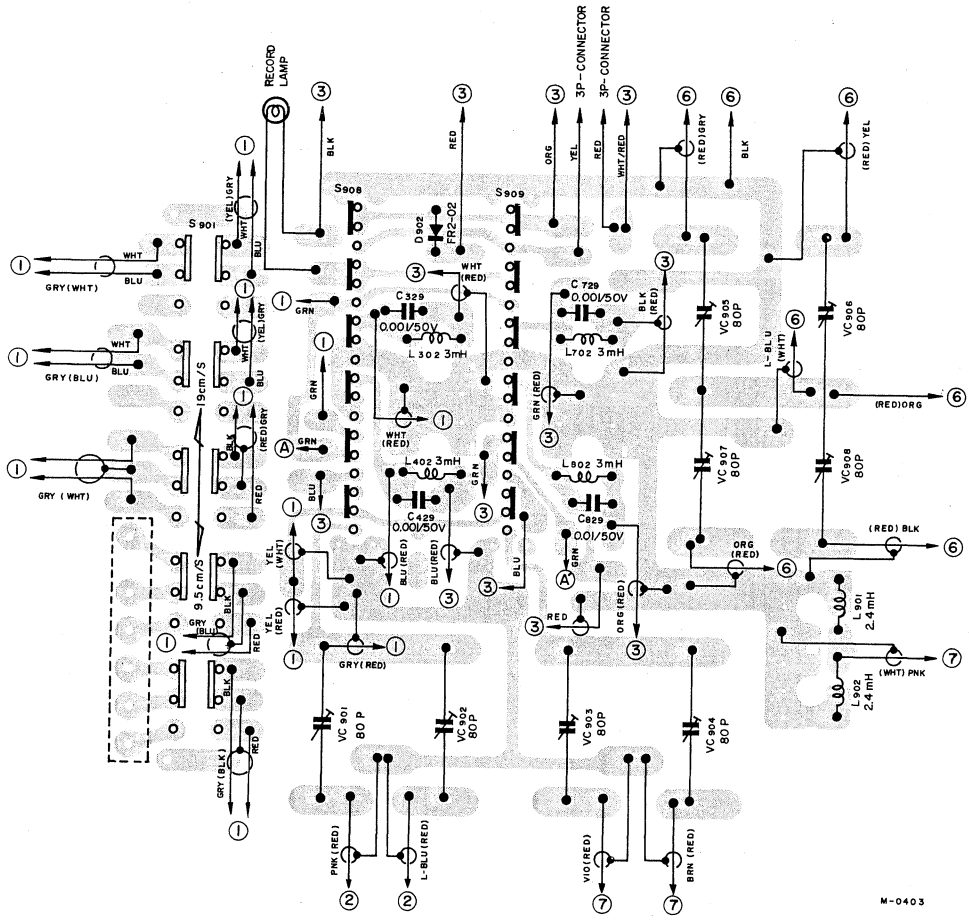
BIAS OSCILLATOR



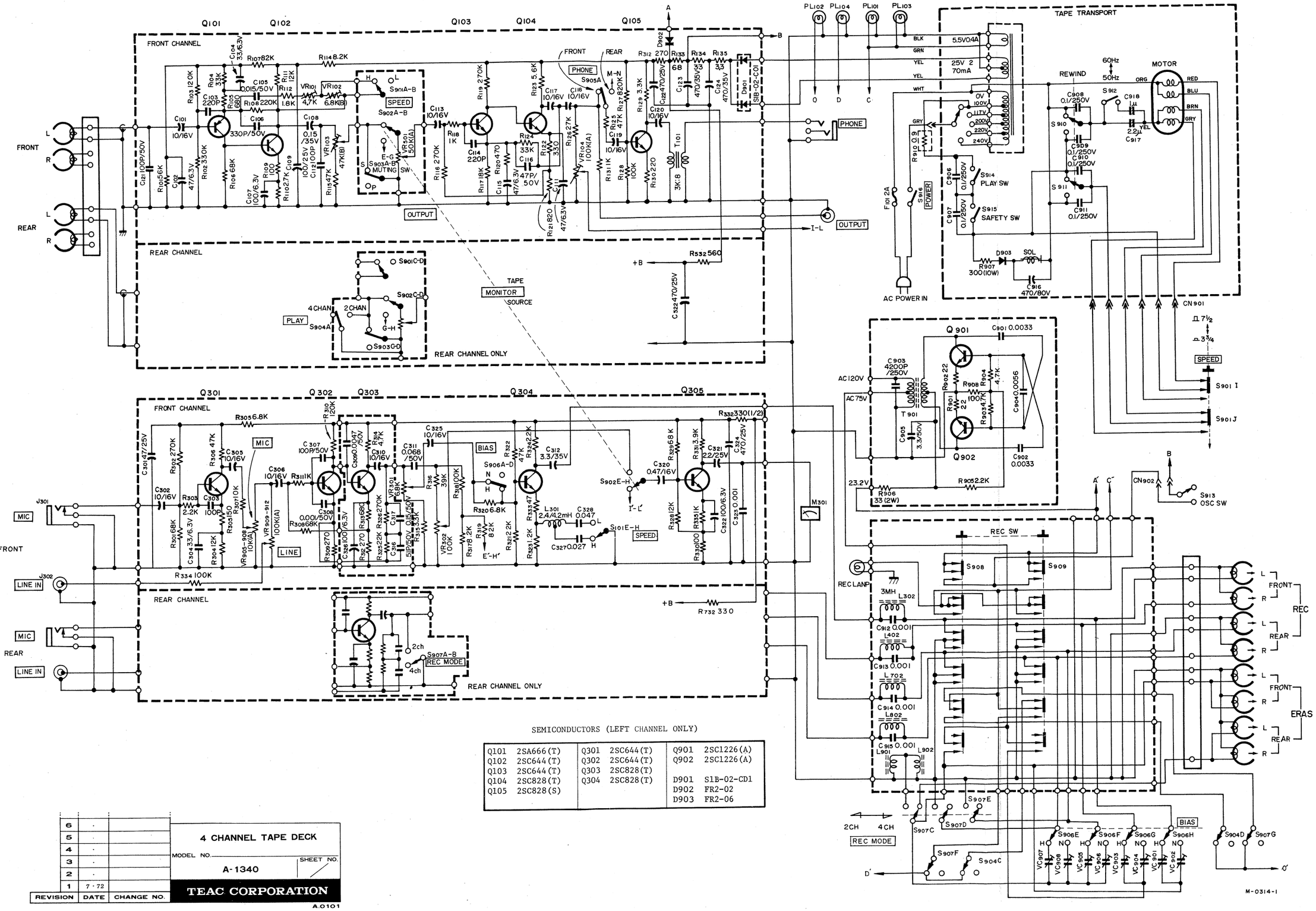
M-0275-I

CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	REVISION 1st	REVISION 2nd
	50490730	PC Board Assy, Oscillator		
	50483321	PC Board, Oscillator		
T901	50563280	Coil, Oscillator		
Q901·902	50424450	Transistor, 2SC1226A-R		
C901·902	50548810	Capacitor, Mylar 0.0033μF		
C903	50544040	Capacitor, Mica 4200pF 250V		
C904	50548920	Capacitor, Mylar 0.0056μF		
C905	50555000	Capacitor, Elec. 3.3μF 35V		
R901·902		Resistor, Carbon 22Ω 1/4W		
R903·904	50516440	Resistor, Carbon 4.7kΩ 1/4W		
R905	50515380	Resistor, Carbon 2.2kΩ 1/4W		
R906	50527070	Resistor, Metal Oxide Film 33Ω 1W		
R908	50515220	Resistor, Carbon 100Ω		

BIAS ADJUST ASSY



CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	REVISION 1st	REVISION 2nd
	50490751	PC Board Assy, Bias Adjust		
	50483960	PC Board, Bias Adjust		
L302·402	50566300	Coil, Trap 3mH		
L702·802				
L901·902	50566620	Coil, Dummy 2.4mH		
	50444540	Switch, Slide (6PDT), ×2		
	50444550	Switch, Slide (10PDT), ×1		
VC901∿908	50547070	Trimmer Capacitor, 80pF		
C912∿915	50547600	Capacitor, Mylar 0.001μF 50V		
	50422340	Diode, Silicon FR2-02		
CN102	50436400	Plug, Miniature 6P		
	50414310	Lamp, Pilot		



SEMICONDUCTORS (LEFT CHANNEL ONLY)

Q101	2SA666(T)	Q301	2SC644(T)	Q901	2SC1226(A)
Q102	2SC644(T)	Q302	2SC644(T)	Q902	2SC1226(A)
Q103	2SC644(T)	Q303	2SC828(T)		
Q104	2SC828(T)	Q304	2SC828(T)	D901	S1B-02-CD1
Q105	2SC828(S)			D902	FR2-02
				D903	FR2-06